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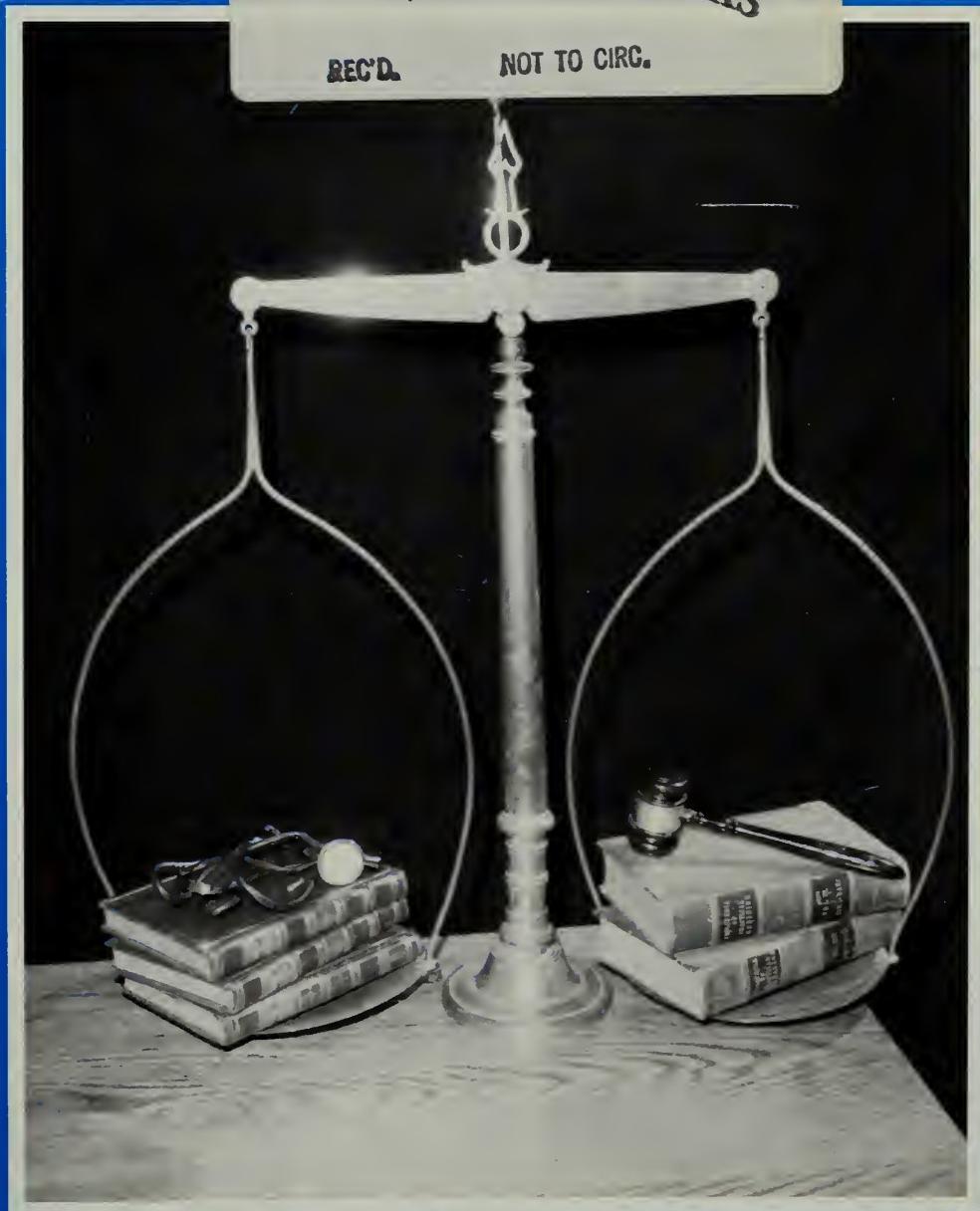
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President's Page

LOWEST IS BEST



We have all heard for all of our lives that South Carolina ranks lowest in this or that state ranking. Well! We now rank lowest in malpractice premiums—at least in OB-GYN—of all the states, and that is great! The national average malpractice premium for OB-GYNs in the United States is \$37,000 per year, or an average of \$206 per delivery. In South Carolina the JUA plus PCF premium in 1988 was about \$9,000 or \$54 per delivery—the lowest premium in the country. Our neighboring southern states are not nearly so fortunate. Georgia's premium for OB-GYNs is about \$50,000 per year; in North Carolina the premium is about \$30,000; and even in Mississippi the premium is more than twice that in South Carolina. The rates for other specialties are relatively the same.

The malpractice climate in South Carolina is much better than in most other parts of the United States. Our JUA has been much more successful than most similar organizations in the country. After a recent actuarial review the JUA board recommends no increase in our JUA premiums this year.

Why have we had such a favorable experience with our JUA in South Carolina? The obvious answer I would like to give you is that we have the best doctors, the best defense attorneys, and the nicest patients in the country.

I can enumerate several reasons for the better malpractice climate in our home state. First, South Carolina is a small and very provincial state with a total population of about three million. There are about 5000 licensed physicians in the state, only about 3000 of whom are doing private practice. Our cities are small and for the most part our population is fairly stable. The people of South Carolina are fairly conservative. I truly believe that our patients and our juries are basically honest and conservative. Lack of communication between physician and patient is the basic ingredient to most malpractice lawsuits. We know our patients and they know us—much different from large metropolitan areas. Our juries have been, for the most part, educable and fair.

The JUA has assumed a very firm stand under the capable leadership of Cal Stewart. The JUA has a reputation of standing firm for trial if the experts feel a claim is defensible. The trial bar has learned not to bring nuisance suits in hopes of an easy settlement.

The S.C. Medical Association has developed a very impressive risk management program. We have developed a panel of experts in all specialties that review claims and records and later serve as experts—much more credibly than the “Hired Guns”! Dr. Euta Colvin has had numerous risk management CME programs that have all played before “Standing Room Only” crowds.

We have developed a small cadre of expert defense attorneys who have a tremendous record of courthouse victories. We also have a group of self-trained expert witnesses in South Carolina who continue to out-perform “experts” from out of town.

Tort reform I mention last because it has had little to do with the present situation. However, when one considers the charitable immunity law, the amendment to the tort claims act, in addition to the tort reform bill, we have had significant reform. We may never get caps on non-economic damages and if we did, they would probably prove unconstitutional in our judiciary system.

South Carolina physicians are in the most enviable position in the U.S. as far as malpractice is concerned. Communication, accessibility and quality care are most important traits of a good physician. Good physicians, not necessarily good doctors, will have the fewest malpractice litigations.

A handwritten signature in cursive script, appearing to read "January".

THOMAS C. ROWLAND, JR., M.D.
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President's Page



A SALUTE TO THE SOUTH CAROLINA BOARD OF MEDICAL EXAMINERS

In May 1988, House Bill #4101 was passed by an overwhelming majority with a definite threat to override a gubernatorial veto. This Bill was amended to reduce the FLEX examination score required for physician licensure to 74 for any day and an overall average of 75. The efforts of our state house staff resulted in changing the original amendment from a score of 70 for any part of the exam. All of this was done for the purpose of licensing a single physician to practice medicine in S.C.

The physician in question is probably very well qualified as he had specialty and subspecialty training and came highly recommended. He had been strongly recruited by the hospital and the community in which he practices. The county medical association in that community sought SCMA help in getting him licensed.

Many members of the legislature, many of our colleagues and even some ranking political officials of our state have asked me what SCMA was going to do about the Board of Medical Examiners and their unbending stature which required legislation to license needed physicians. Of course my first answer is to remind them that the Supreme Court of South Carolina in 1985 asked the SCMA to butt out of the Board of Medical Examiners' business.

Recently three SCMA officers met with three officers of the S.C. State Board of Medical Examiners for an open discussion of our differences of opinion. Since your president and the president of the Board have been close friends for some 35 years, you can be assured that the discussion was very frank and open.

The following data has been reviewed from the last three years' work of the Board. Of the 1,529 physicians licensed, 82% were based on national board exams or old State Board exams. Only 18% were based on FLEX scores. Of these, only 14% were U.S. graduates. The total number of applicants for licensure in S.C. who were rejected for not meeting minimum standards of the Board were 44 or 2.8% in this three-year period. SPEX, a new exam for physicians entering S.C., is designed for the practicing physician who has been out of school for some time. Reportedly it is passed without special preparation by most physicians in active practice. A recent graduate of any good medical school should score in the mid to high 80s on the FLEX exam.

South Carolina is a very attractive place to settle. It is certainly a very attractive place to practice medicine. The malpractice climate is much more favorable than that in even our neighboring states. We are developing rapidly in industrial and economic stature. Our mountains, coast and climate are attracting a great number of retirees. We want and can have capable, well-trained and properly motivated physicians in South Carolina. Let's not lower our standards even to get lesser qualified doctors in poorly served rural areas. Our citizens are better served by good transportation.

I understand that there are several other less than qualified young physicians who were educated in off-shore medical schools standing in the wings waiting for their chance at "Legislative Licensure" this next session. Qualifications for licensure to practice medicine are best not legislated by well-meaning politicians—regardless of the stature of the candidate's parents or friends!!

We should salute our Board of Medical Examiners for keeping the standards and quality of our practicing physicians at a high level. This best serves the citizens of our great state.

Sincerely,

A handwritten signature in cursive ink, appearing to read "Tommy".

THOMAS C. ROWLAND, JR., M.D.
President



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President's Page



A SALUTE TO MIKE AND ANDY

Having been reared in the modest home of a public school teacher and having worked hard to obtain my medical education, and having worked hard to accumulate whatever worldly goods I have acquired, I can assure you that I have very little time for freeloaders, bureaucratic intrusion, and socialism in our medical system. However, there are two persons in South Carolina who are involved in the bureaucracy who have become my good friends and good friends of medicine in South Carolina during my term as your president. I would like to take this opportunity to recognize and thank them both.

Mike Jarrett, Commissioner of DHEC, is doing an outstanding job for the well-being of our citizens. He is very involved in improving the perinatal health in S. C. (which may be the worst in the world). He is dealing with toxic and other waste disposal problems in an orderly manner, and he constantly seeks consultation of your president and other officers and staff of the SCMA before making decisions which affect our practices. Mike is always available to SCMA for advice or help with any mutual problem.

Dr. Andy Laurent is the Executive Director of the State Health and Human Services Finance Commission—put simply, he is in charge of Medicaid reimbursement in South Carolina. Early after his appointment, Andy met with SCMA leadership in an effort to determine why so many physicians refused to care for Medicaid patients. Of course he knew that fees were low, but we must be reminded that these are poor people—patients who traditionally have had free care—or at least they usually did not pay anything for it. Fees have been increased. Medicaid reimbursement in South Carolina exceeds Medicare payments in some cases. Andy also heard our complaints of returned claims, stymied cash flow, negative attitudes, poor access of patients to the system and the “program integrity” or audit system problems. He has solicited all our complaints both individually and collectively.

Not only has he heard our problems, but he is doing something about them. Andy has personally worked through the claims process and has identified the most common causes for rejection. He is educating his people to positive attitudes and is trying to improve and simplify access for patients. He has discovered a lot of errors on our part and will educate us, if we ask for help.

Mike and Andy are combining forces to find innovative ways to get more funds and patients into the system. They are both sincerely interested in good health and good health care for these less fortunate South Carolinians. They both are motivated to help us provide this care with the least hassle and with reasonable reimbursement.

We physicians must remember that those of us who received our medical education in South Carolina did so at a cost of some \$50,000 to \$60,000 a year to our state. We owe something back for this help. Part of our debt is to provide care for our less fortunate. It disturbs me, Andy, Mike, the Governor and our Legislators to hear of a physician, especially a young physician, publicly refusing to accept Medicaid patients.

I salute my new friends Mike and Andy and thank them on behalf of our association for the services they are providing which many times seem thankless, I am sure. I implore you all to share the load, and it will not be too heavy for any of us. We must voluntarily help care for these less fortunate people or their care will surely be mandated.

Sincerely,

THOMAS C. ROWLAND, JR., M.D., President



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President's Page



THANK YOU AND FAREWELL

It is hard to believe that my year as President of the SCMA will be over this month. It seems like such a short time and so little has been accomplished. On the other hand, I am not sure how much more one could stand!

I have certainly enjoyed the privilege of being your President for the past year. I have enjoyed representing you in national forums, our legislature, and the state agencies. I have enjoyed the hospitality of many county societies and regret that time did not allow a visit to all of them. My relationship with the media has been pleasant and I hope positive for our association and the profession. The turf battles and the changing PRO have been challenges in which we have prevailed. My rapport with our auxiliary has been good, and I am proud to see "The Van" on the road. I have especially enjoyed this *page*—a true luxury to be able to express one's thoughts to an open forum. I have even enjoyed the chicken dinners!

I would like to take this last page to thank all the people who have made my year so pleasant. Dan Brake, President-Elect, and Chris Hawk, Chairman of the SCMA Board, have been very supportive throughout the year. They will provide excellent leadership for the SCMA in the future. The members of the Board of Trustees of the SCMA have all been very supportive. They have offered good advice and have made wise decisions for the good of all. The members of the AMA Delegation have always offered wise counsel and support in more ways than I can enumerate. To all of the SCMA leadership, I say thank you!

Bill Mahon has been chauffeur, advisor and friend. He has provided support far beyond the requirements of his job description. The other members of the SCMA staff are fantastic. The cohesiveness and cooperation of all our staff members are outstanding. I can honestly say that I have not heard of an unpleasant situation at SCMA Headquarters this entire year. Thanks to all of you for a job well done, and for making my job so easy.

I must take this opportunity to publicly thank Isabelle, my wife and good friend, for tolerating my schedule and supporting my projects. I must also thank my partners, Nat Salley, Dave Postles, and Jimmy Stands for all their support and toleration of my many absences from my office. Special thanks to Lisa Bishop, my secretary, for keeping me "on track" during the year. I must not forget to thank my patients who have remained loyal in spite of missed and changed appointments.

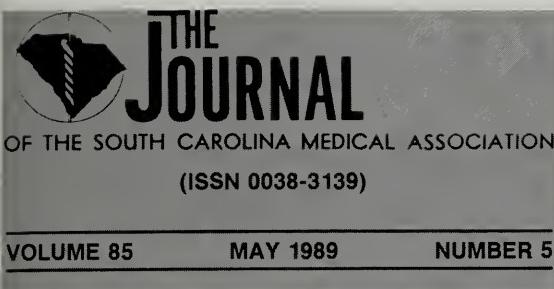
Last and most important, I would like to thank you—the membership. You have my sincere appreciation for the confidence and support you have given me that has made my year of service successful. Thank you for the privilege of becoming "one of a hundred." SCMA can only have 100 presidents per century and I am very proud to have been elected to this group. As I complete my year as your president, I will join other members of my class for our 30th MUSC class reunion. What a way to end the year!

Thank you for the greatest honor of my life—to have served as your President!

Sincerely,

A handwritten signature in cursive ink that reads "Jimmy".

THOMAS C. ROWLAND, JR., M.D.
President



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Your SCMA Board of Trustees and staff get frequent complaints from physicians throughout the state who are upset about problems they are having in their practice and want us to help. We have not denied help to physicians who are not members of the SCMA, but you would be amazed at the number of complainers who have not paid their dues to the SCMA and the AMA. They are the "free-riders" we have been talking about on our membership posters. These free-riders are mostly good, caring physicians, but often in a three-man group, for example, one member of the group joins and the other members of the group get a free ride. This is totally unfair to the paying members of this association. As you know, last year the House of Delegates approved the first dues increase in ten years. This increase would not be necessary if we could get all the "free-riders" to pay their fair share. You can help! The delegates from your county have a list of those who are not members. Urge those non-members to join and become involved!

As I stated at the House of Delegates I really am looking forward to coming to your county medical society meetings. Having graduated from Wofford College and MUSC, I have old friends in every county in this state that I have not seen for a long time. I look forward to renewing old friendships. I will be wearing the SCMA medallion in honor of John Dessaussure Gilland, III. I hope it will be an inspiration to you, as it is to me, to follow Dr. Gilland's example of involvement and commitment to our profession and the patients we serve.



DANIEL W. BRAKE, M.D.
President



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President's Page

UNITED WE STAND!

At the May meeting of the SCMA Board of Trustees, we reaffirmed the previous position, originally set in 1984, which stated that the SCMA go on record as "opposing the UCR reimbursement system in its current form because it is discriminatory against patients and physicians alike, and the SCMA supports equal reimbursement by third party payors for equal services, with no mandatory assignment, the freedom to balance bill and an upgrade of reimbursement schedules every six months."

To understand this position, it might be worthwhile to review the circumstances in 1984 which led to its adoption. First, the UCR (usual, customary and reasonable) which Medicare utilizes in South Carolina is not usual and customary—and it certainly is not reasonable. The principle was to utilize physicians' fees to arrive at the 75th percentile to determine the Medicare allowable charge. However, each physician and each specialty had different fees, so this system rewarded the physician who charged the highest rates and penalized the physician who tried to keep his fees down. For example, if a patient went to one surgeon for a procedure, the charge and the UCR may be the same—\$300; but suppose another patient went to a different surgeon for the identical procedure, this surgeon's fee could be \$300 and his UCR only \$200. So, one patient may have an out-of-pocket cost of \$100, although both patients paid the same insurance premium.

The specialty differentiation at times would also be humorous if it weren't so sad. For example, guess which specialty was reimbursed the highest fee for a sigmoidoscopy. If you guessed the gastroenterologist, you guessed wrong. Ophthalmologists were paid more than gastroenterologists for a sigmoidoscopy because only a few ophthalmologists filed that code and their fees and resulting UCRs were higher. The only fair system, then, would be to allow the physician to set a reasonable fee for his service and an insurance company reimburse all patients the same fee for that service. Then the patient could pay the physician the balance, allowing all patients to receive the same amount for the same procedure regardless of the physician who provided the service. Sounds simple enough, doesn't it?

In 1983, the SC Academy of Family Physicians wrote the Insurance Commissioner stating that the UCR reimbursement system discriminated against patients and physicians alike, and that Blue Cross and Blue Shield should eliminate the UCR with specialty prevailings and calculate one allowable charge for each code. The carrier responded to the Insurance Commission that since this would affect all of the state's physicians, they could not consider such a major change without the endorsement of the SCMA. At about the same time, at the AMA Interim Meeting, the AMA House of Delegates voted to change the AMA policy on physician reimbursement from the UCR concept to the indemnity method. Thus, on January 13, 1984, after consideration by a subcommittee and after careful deliberation, the SCMA Council voted to adopt the position stated above. It was further adopted by the SCMA House of Delegates.

Blue Cross and Blue Shield implemented a prevailing fee schedule July 1, 1984 and eliminated the "customary" charge schedule, further requesting that HCFA allow them to implement the same schedule for Medicare patients. A decision was deferred because of a pending lawsuit in the state of Michigan on the same subject. In April of this year, Senator Hugh Leatherman, working with our congressional delegation to eliminate unreasonable Medicare payment differentials, requested Blue Cross and Blue Shield to urge HCFA to implement a prevailing charge screen with no specialty differentiation. This, then, resulted in the SCMA's reaffirming its previous position in support of eliminating the UCR reimbursement system.

If, indeed, this concept is implemented by HCFA, it will have NO effect on your current charges to Medicare patients. There will be only one fee (or Medicare allowed charge) for each CPT code for all physicians, and all patients will be reimbursed the same fee for the same service regardless of their physician. This will serve two purposes: (1) it will standardize the charge for a procedure so that all Medicare patients will receive the same amount of reimbursement for that procedure; and (2) it will unite us as one and hopefully prevent any specialty group from pulling out and trying to negotiate separate contracts with Medicare. This would be nonproductive, divide our organization and destroy our private practice of medicine. United we stand!

DANIEL W. BRAKE, M.D.
President

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President's Page

LET'S GET IT TOGETHER

Not too many years ago doctors were concerned about the growing number of patients who were inadequately insured. To try to help these people the physicians founded Blue Shield. They agreed to accept the allowed charge as payment in full. In those days, the allowed charge was reasonable and most physicians were "participating" physicians. The Blue Cross and Blue Shield Board of Trustees was made up of lay people plus a number of physicians. As the years have passed, we have seen our numbers decrease to one physician on the board. We have also seen an attitude change, as reflected in a recent newspaper article interviewing Blue Cross and Blue Shield President, M. Edward Sellers, and Chairman of the Board, Joe Sullivan. If this negative philosophy persists, there can be only more problems for the patients, the doctors, the hospitals and, eventually, for Blue Cross and Blue Shield.

When Blue Cross and Blue Shield began serving as the intermediary for Medicare they began denying claims retroactively. They also began retroactive denials for their private insurance company. It was interesting that other insurance companies were not utilizing the same retroactive denial procedure as Blue Cross and Blue Shield. Before long it was difficult to tell the difference between Blue Cross and Blue Shield and Medicare. In the 1970s the SCMA fought to stop the retroactive denial process and tried to establish a concurrent review system. We worked with Blue Cross and Blue Shield and tried to improve the quality of reviewers who were denying claims. Blue Cross and Blue Shield also worked with us and we were able to find competent, practicing physicians to do their review work.

It is interesting to note that Blue Cross and Blue Shield recently got the contract for CHAMPUS and the SCMA is starting to get complaints about denials of CHAMPUS claims. This was not a problem with the previous intermediary, but Blue Cross and Blue Shield might say that the former intermediary was not denying enough claims. We also continue to get complaints about Medicare and about Blue Cross and Blue Shield as a private company and, again, most of these complaints deal with denied claims. Some of these denials are legitimate, but there are also claims which are denied inappropriately. In these situations either the patient pays out of pocket for the service or the physician provides a service for which he is not paid. Either way, Blue Cross and Blue Shield gets the premium from the patient and doesn't have to pay the claim. How many thousands or millions of dollars of claims are denied each year? Only Blue Cross and Blue Shield can answer that question.

This problem needs to be addressed. One possible solution would be to set up a liaison committee between the physicians and Blue Cross and Blue Shield for their private company as well as Medicare and CHAMPUS. I've already met with representatives from Medicare and Blue Cross and will meet with representatives from CHAMPUS to try to improve relations. For me to effectively discuss the problems with the carrier requires that you notify us of any claims that are denied inappropriately. This will allow SCMA to document the severity of the problem. Hopefully, Blue Cross and Blue Shield will be receptive to our patient and physician problems and we can work to insure true peer review and effective claims administration.

A handwritten signature in black ink that reads "DW Brake M.D.". Below the signature, the name is printed in a smaller, serif font: "DANIEL W. BRAKE, M.D." and "President".

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President's Page

HEALTHCARE 2000

At our Annual Meeting I promised to form an ad hoc committee to study our healthcare system. We had our first meeting in July and I feel confident we will bring some constructive recommendations to our House of Delegates next year. Our committee consists of representatives from government, Medicare, Medicaid, hospitals, physicians, nurses, nursing homes, Medicare recipients (AARP), private business, private insurance companies and the legal profession. After our first meeting it is quite evident that we will have to address two major problems: (1) how to cut medical costs without affecting quality; and (2) how to redistribute the total healthcare dollar so that everyone is paying their fair share according to their ability to pay. These are tough questions. Some of the decisions that will follow to address costs will have to include a closer look at heroics (in medicine), such as performing CPR on a patient who has been in a nursing home with a stroke, being tube fed, with no mental responses. We also will have to look at neonatal nurseries. There are many patients we keep alive with respirators, etc., for days to weeks at tremendous financial and emotional expense to the families. We will have to include our medical ethics committee as well as the legal profession in discussing these problems.

In discussing the distribution of the total healthcare dollar we will accumulate data on exactly what percent is paid by all the recipients. For example, the healthcare dollar is paid by (1) Medicare/Medicaid—but they frequently do not pay a full dollar for a dollar's worth of service; (2) the uninsured or inadequately insured—these also do not pay a full dollar for a dollar's worth of service; (3) private patients and private business—usually pay in full plus they pay for the deficit created by Medicare/Medicaid and the uninsured and inadequately insured. The percent of private paying patients continues to decrease but the percent they pay of the healthcare dollar continues to increase. We cannot continue in this direction.

We will need to look closely at businesses Medicare has created such as nursing homes, home healthcare services and medical supplies. We need to address how physicians can become more cost conscious about practicing medicine without affecting the quality of care we give our patients. We also need to address some physicians' charges as well as look at socialized medicine as practiced in other countries. These are a few issues we will have to address over the next year.

You may be interested in knowing that we are not the only people concerned about healthcare costs. Senators Hugh Leatherman and Ed Saleeby have formed separate committees to address this issue and these committees have begun their work.

I can assure you of a dramatic change in the current healthcare system by the year 2000. Hopefully, the change will be what's best for the American people. I promise to dedicate my time and energies to attempt to correct the flaws in our current system rather than allowing our country to move toward socialized medicine.

A handwritten signature in black ink, appearing to read "Daniel W. Brake, M.D." followed by "President".

DANIEL W. BRAKE, M.D.
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President's Page

EXPENDITURE TARGETS (ETS) = RATIONED HEALTH CARE

Rising health care costs are of great concern to both health care providers and consumers alike. The reduction of health care expenditures must occur but in a manner so as not to jeopardize the quality of care available to patients.

Upon taking the office of the presidency of the South Carolina Medical Association in April of this year, I stressed three primary points to my colleagues in my inaugural address: first, to provide quality medical care for the sick; second, to discipline ourselves to insure that quality; and third, to be an observer and spokesman for health care and guarantee access to quality care for all Americans.

Each of these responsibilities addresses the issue of quality of care for our patients. I believe it is the responsibility of organized medicine to protect the *availability* of quality care for our patients from the bureaucratic attempts to control health care expenditures.

One area of health care spending of utmost concern today is Medicare—a federal promise to provide health care services which was made to elderly Americans 26 years ago.

Certainly, no one would quarrel with the idea of controlling Medicare costs, but the proposal to impose expenditure targets (ETs) on Medicare payments is very simply *wrong*. The idea of capping the total amount of Medicare dollars available each year is a “solution” which would work a great hardship on patients by severely restricting their access to necessary medical services. What Congress and the Bush Administration are talking about is RATIONING of health care. Due to new technology and longer life span, the demand for health care is growing. To couple that demand with shrinking resources would put an unbearable pressure on physicians to do less for patient welfare. Under ETs, the government would be asking physicians to figure out how *NOT* to treat their patients instead of how to treat them. This is a situation physicians could never accept. By any name, expenditure targets are simply an attempt by Congress and the current administration to balance the budget on the backs of America’s elderly.

The real message of ETs is that the government cannot control the Medicare program. There are many areas that could be considered to decrease Medicare costs. Instead of reasoned approaches to specific problem areas, the government is throwing up its hands and abdicating responsibility to a process that has resulted in rationed care in other countries. For example, the Canadian system progressed from access to care for everyone to long waiting periods for hip prostheses, coronary bypass and other procedures. We are seeing America go through the same process with Medicare. With Congress’ proposed ETs we have now reached the final step to rationing care as we have seen in the socialized systems.

Ironically, these targets aren’t even necessary. The Ways and Means Health Subcommittee has already met its Graham-Rudman-Hollings target for 1990, so there is no short-term justification for Medicare expenditure targets.

The reason Part B (physician) payments have risen faster than Part A (hospitals) is not because of “overutilization” by physicians. When the government clamped down on hospital admissions five years ago, more procedures had to be done on an outpatient basis, resulting in an average growth of outpatient services of 30 percent per year. In comparison, physician services grew only 13 percent from 1980 to 1988. Outpatient charges grew from 18 percent of Part B spending in 1984 to 28 percent in 1988. At the same time, physician services decreased from 72 percent of Part B spending to 61 percent.

In commenting on ETs, a June editorial in *The Washington Post* concluded that “normally, it would be wrong to impose a change as vast as this in the budget process, where the focus is on the short term rather than the long and less on substance than on dollars.” We believe this would *always* be wrong.

The South Carolina Medical Association and American Medical Association believe that areas such as practice guidelines would be more appropriate—and more effective—than ETs in controlling physicians’ charges. The number of practice guidelines in existence today is small, but there are enough of them to demonstrate their usefulness in reducing the cost of medical care. Practice guidelines work. More importantly, they control costs by reducing the amount of inappropriate care. On the other hand, however, expenditure targets control costs by limiting appropriate as well as inappropriate care.

The SCMA and AMA are committed to working with Congress to address budget requirements, while maintaining the promise of the access to quality care for all patients. Rationing in the guise of expenditure targets would betray that promise. Physicians will not abandon their role as the patients’ advocate in order to provide the government a quick and dirty fix to a budget problem which neither the elderly nor the physicians created.

A handwritten signature in black ink, appearing to read "Daniel W. Brake, M.D."

DANIEL W. BRAKE, M.D.

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President's Page

HUGO VS. SOUTH CAROLINA

Hurricane Hugo hit the coast of South Carolina on Thursday, September 21 and struck a fierce blow to our state that night. The word "devastating" has been used so much that we are tired of it, but it certainly describes Hugo's effect on South Carolina. After the shock, we started to put our lives back together.

My medical office now has electricity and we are getting back to normal at work, but I still have 14 trees on my garage, deck and house and no electricity at home. I must admit that the SCMA has been pushed down on my priority list since Hugo. I had to cancel a trip to Washington the week of October 6 but I resumed my duties the following week, with a trip to Georgetown on October 9, and on to Hickory Knob to meet with the House Labor, Commerce and Industry Committee, and then the Pickens County Medical Society on October 10. Because of the magnitude of the effects of the hurricane, I think it is certainly appropriate to dedicate this President's Page to Hugo.

I would like to commend the doctors, nurses, paramedics, emergency personnel, electricians and telephone personnel who neglected their personal needs to give their time to the rest of us. Many physicians and medical personnel have gone out to rural areas to care for the sick and injured. As a result of Hugo, our interpersonal relationships have undergone changes. For example, Hugo has made us more honest. If you ask someone, "How are you doing?" most people would reply, "Fine," pre-Hugo days. Now they say, "Not so good," "It's getting better," "I got electricity today," or "Not worth a damn." I have noticed a definite improvement in attitudes and spirit when the electricity comes on and you can take a hot shower and shave. I'm still waiting. I complained to a doctor in the hospital about my problems and his answer was, "I knew a man who complained because he had no windows until he met a man with no walls." I stopped complaining.

This hurricane has certainly brought a lot of us closer together. We have seen neighbors working to help each other clean their yards, when before Hugo they did not even know each other's names. With no electricity—therefore no television—and a curfew, our families have had to stay in and talk to one another, resulting in closer family relationships. Disasters frequently bring out the best in us. We have seen a tremendous outpouring of supplies and money from all over the country. It has reinforced my belief that we are better off caring for ourselves than depending on government to care for us. A typical example is the 38 truckloads of goods donated by private sources and delivered to McClellanville, while the government (FEMA) tried to figure out how to get money from Washington to the needy people in South Carolina. They still haven't figured it out! It's quite obvious that whether we are talking about medicine or a disaster like Hugo, the more we care for ourselves with as little government involvement as possible, the better off we are.

We realize that a number of physicians have lost their offices and are having financial problems as a result of Hugo. The SCMA has offered \$500,000 to set up low interest loans to needy physicians, and the AMA is providing an additional \$500,000. If you are having financial problems as a result of Hugo, send your application in to the South Carolina Medical Association and we will try to assist you.

I'm happy to report that, although badly damaged, Charleston has not lost its charm. The spirit I see in the people all over South Carolina assures me that Charleston and the other areas will rebuild. Charleston has withstood revolutionary and civil wars, fire and earthquake, and it will certainly withstand Hugo. So you can count on our Annual Meeting, April 1990, in Charleston. All in all, Hugo struck a mighty blow, but South Carolina will come back stronger than ever, having learned another lesson from nature.

A handwritten signature in black ink, appearing to read "Daniel W. Brake, M.D." followed by "President".

DANIEL W. BRAKE, M.D.
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SCMA, P. O. Box 11188
Columbia, S. C. 29211

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President's Page

WE OWE IT TO FUTURE GENERATIONS

In a previous President's Page, I told you about Healthcare 2000, our committee to address the healthcare crisis. To treat our diseased healthcare system I have asked the members of Healthcare 2000 to take off their special interest hats and do what's best for America. Healthcare 2000 is looking at all aspects of the healthcare system, Medicare, Medicaid, the uninsured and the inadequately insured.

Medicare and Medicaid account for over 50 percent of our hospital days and do not pay a full dollar for the dollar of services received. Another 10 to 15 percent of hospital days are used by the uninsured and inadequately insured. Obviously, they are not paying in full for the services received. That leaves only 35 percent of patients paying in full the services received as well as picking up the cost of services received by Medicare/Medicaid, the uninsured, and the inadequately insured. Healthcare 2000 is addressing the healthcare issue by dividing it into two areas: (1) addressing the total cost of healthcare by trying to discover ways to control the cost without affecting the quality of care; and (2) redistributing the healthcare dollar so that everyone is paying what they can afford to pay and letting the government take care of those patients that are unable to pay for themselves. One thing is clear, it is important that the government programs pay in full for the services received so that we can stop the burden of cost shifting to that 35 percent of patients who are paying in full.

On future President's Pages I will discuss other aspects of our healthcare system, but for this page I would like to take a look at Medicare. In America we find retired parents who are financially secure offering assistance to their children. We also find children offering financial assistance to their parents. This is the way our American system works. But with Medicare, we have wealthy parents receiving benefits while some young people in financial trouble are having to pay for the cost shifting in Medicare. One solution to this problem is to require everyone with the financial means to pay their fair share of healthcare costs. This would require a means test in Medicare to put it on the road to becoming fiscally sound. Medicare should also start paying in full for the services received and thus eliminate the cost shift.

I really do not believe the U. S. Congress realizes the burden they are putting on future generations of Americans when they approve more Medicare benefits without increased contributions to Medicare. Certainly refinancing Medicare will not solve all the problems but it would go a long way toward alleviating them. We all need to work together to correct the inequities in our healthcare system. Medicare is only one of the problems.

A handwritten signature in black ink that reads "DW Brake MD".

DANIEL W. BRAKE, M.D.
President



THE JOURNAL

OF THE SOUTH CAROLINA MEDICAL ASSOCIATION

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PROFESSIONAL LIABILITY IN SOUTH CAROLINA

INTRODUCTION

This issue of *The Journal of the South Carolina Medical Association* is a milestone for the South Carolina Medical Association/Joint Underwriting Association Risk Management Program. Members of the committee who have contributed so much over the past six or more years have provided articles for this publication. Our hope is that it will be a permanent record or manual of the accomplishments of what those of us involved believe is a very successful endeavor. The thrust of the program has always been and continues to be positive. The concept of the program originated in the minds of thinkers and doers in our Association. We were faced with a pending crisis in medical liability—everyone told us we were just behind the rest of the country but that the problem would overtake us and we would be in trouble just as Florida, New York, California and others were.

When all the malpractice insurers pulled out of the state in the mid 70's, SCMA leadership worked with the South Carolina General Assembly and the Joint Underwriting Association was created. Later the Patients' Compensation Fund was established. These are relatively permanent entities, being functional until there is "no longer a need for them."

The JUA and the PCF have very adequately met the needs of South Carolina physicians as well as other healthcare providers. SCMA tried once to bring a private insurer back into the state but this carrier could not compete with the JUA's rate structure and soon pulled out.

There has been good and helpful cooperation

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PROFESSIONAL LIABILITY IN
SOUTH CAROLINA

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from the state Insurance Department through the Commissioners, John Lindsey, Roger Smith and now John Richards. SCMA, as well as other health professional groups, is well represented on the Board of Directors of both the JUA and the PCF.

This special issue of *The Journal of the South Carolina Medical Association* is dedicated to the many individuals who have contributed to the success of our medical liability efforts in South Carolina—to the leadership of SCMA, the South Carolina General Assembly, the South Carolina Insurance Department, JUA Defense Attorneys and UAC Investigators, the staff of the South Carolina Medical Association, the Physicians Risk Management Committee and particularly to the many South Carolina physicians who have given freely and willingly of their time and abilities.

With this support our efforts will continue to "eliminate the negative" and "accentuate the positive" in medical professional liability in South Carolina. □

GLANCING BACK

WILLIAM F. FAIREY, M.D.*

It is of historical interest that a "Medical Malpractice Survey" was taken of the South Carolina physicians in 1971 by this author, who reported the results in *The Journal of the South Carolina Medical Association* in January 1972. The closing paragraphs of this article are as follows:

"As a result of this survey and its conclusions, it would seem appropriate at this time for organized medicine in South Carolina to form a "Malpractice Committee" to avail themselves of the status of malpractice cases and insurance as revealed by this study, to keep abreast of increased rates as are periodically requested by the insurance companies and for representatives of the Committee to attend such open hearings as are made available by law to question critically the basis for such increases; to determine some means of notification by the insurance companies of the outcome of each malpractice claim or case which is brought in South Carolina; and further to consider the possibilities of obtaining a single insurance company which would offer to insure the physicians of South Carolina in a fair, consistent and realistic manner, and by this pooling of malpractice data, information can be readily and constantly available as the malpractice situation predictably becomes more critical.

Consideration may even be given to the formation of a panel of physicians (or doctors and lawyers) to evaluate on behalf of the individual doctor against whom a claim is made to determine whether it is a valid claim as has been done in other states with the cooperation of an insurance company. In this way, the insurance company can keep its doctors constantly alerted to the pitfalls and can provide prophylactic measures by which the physician can avoid legal entanglements.

Education of the physician is needed by having nationally recognized legal experts to speak to the Medical Association and to the county

societies, by formation of medical-legal panels locally to discuss their respective disciplines and to seek common ground of understanding. It is to be noted that the Medical College has adopted as a part of its new curriculum a required 22 hour course on medical jurisprudence which stimulates the students early so that they pursue a continual, interested study of malpractice cases throughout their training, on a sound and relatively objective basis.

Although the malpractice picture in South Carolina has not reached the critical stage, as one reads the individual letters from the physicians who have been threatened or involved in a malpractice suit, the only conclusion is that the situation is serious enough and potentially dangerous enough to warrant an official interest by organized medicine in this State. The goal at the present time should be primarily that of finding a means by which the physicians might stay informed on a year to year basis as to what malpractice suits are being brought and to be reassured that the rates are reasonably tied in with the malpractice experience."

During the past 17 years, organized medicine has responded well to the concerns expressed by the physicians in this 1971 survey. The physicians' survey reflected a certain helplessness, dismay, and even outrage relative to their plight and to the discernable malpractice crisis which was beginning to unfold.

Due to enlightened leadership of the South Carolina Medical Association, uniquely bringing together the strengths of the state government combined with that of the insurance industry, South Carolina has responded well to the challenge of the medical malpractice crises of the 70's and 80's. As a profession and as an association, it is vital that we continue to work together to address the medical malpractice problems/crises as they arise in the coming years. □

* P. O. Box 188, Pawleys Island, SC 29585.

SOUTH CAROLINA MEDICAL MALPRACTICE JOINT UNDERWRITING ASSOCIATION

BARTOLO M. BARONE, M.D.*

In early 1974 and in 1975, the private insurance carriers announced they would no longer write medical malpractice coverage in South Carolina. Consequent to this impending availability crisis, the South Carolina Medical Association worked to maintain an occurrence basis rather than a claims-made market for professional liability insurance. Through the expert help of Mr. Calvin Stewart and the South Carolina Department of Insurance, the SCMA appealed to the legislature for the enabling legislation, and the South Carolina Medical Malpractice Liability Joint Underwriting Association came into being in 1975, with Mr. Calvin Stewart as the Manager and the Chief Insurance Commissioner of the South Carolina Department of Insurance as the Chairman of the JUA Board.

Only three major changes have been made in the JUA law during its entire lifetime. The first major change in 1976 removed the provision which made the JUA the exclusive medical malpractice insurer in South Carolina, and this change permitted the private insurance companies to sell medical malpractice insurance in South Carolina. The second major change also occurred in 1976 when the JUA law was changed to limit the amount of coverage provided by the JUA to \$100,000 per claim and \$300,000 aggregate of all claims in one year. This change made the JUA a basic insurer and the Patients' Compensation Fund (PCF) became the source of the excess medical malpractice coverage. The third major change occurred in 1983 when the JUA law was changed to make the JUA a permanent operation. Prior to this time the JUA law expired every year or two and it was necessary to pass new legislation to extend the JUA's authorization to operate. With the exception of these three changes, the JUA currently operates as it did in the beginning on July 1, 1975.

The JUA operates exactly like a mutual insurance company in that it provides all of the casu-

alty insurance services that are provided by insurance companies. The JUA issues insurance policies, collects and invests insurance premiums, handles claims, defends suits and provides loss control and risk management services to its policyholders. The JUA operates under the direction of its Board of Directors and through the JUA manager and servicing carriers. The Board contracts with the servicing carriers to provide the necessary policy, claims, loss control and risk management functions. This has proven to be a very satisfactory and economical method of operation. Most private insurance companies' total expenses are at least 30% of each premium dollar while the JUA's total expenses are less than 15% of each premium dollar. The JUA is able to specialize in specific areas in a manner that private insurers are unable to do in that it contracts with the South Carolina Medical Association to provide a very comprehensive physician risk management program and it contracts with the South Carolina Hospital Association to provide an extensive hospital loss control program. The JUA is also able to contract with a company which specializes in claims and a company which specializes in policy administration.

The JUA was the exclusive medical malpractice insurer from July 1, 1975 through September 27, 1976 and insured all of the nongovernment physicians during this period. Although private insurance companies started to insure South Carolina physicians again on July 1, 1977, the private insurance companies have never made any significant market penetration and the JUA has been the state's major medical malpractice insurer since its inception. The JUA currently insures more than three thousand physicians and a thousand P.A.s. There are a number of reasons for the JUA's popularity with physicians including occurrence type coverage at an affordable cost, good service, and strong legal defense; however, the most important reason is the physicians' confidence in the JUA. As a result of the very extensive physi-

* 315 Calhoun St., Charleston, SC 29401.

THE JUA

cian participation in the operation of the JUA, physicians are aware of the true medical malpractice conditions in South Carolina and the necessary costs of insuring South Carolina physicians for their medical malpractice exposures. Not only do our physicians know that the JUA is being operated in their best interests, they also know that no one will make a profit from its operation. They know that the JUA will continue to be available to them and that physicians will continue to have a major role in the operation of the JUA.

It is quite clear that the medical malpractice crisis of the seventies is still with us in the eighties and that it will probably be with us for a long, long time in the future. Most states have passed a tremendous amount of legislation in an attempt to improve the medical malpractice conditions. Some 37 states have passed very extensive medical malpractice tort reform laws and there has been no measurable improvement. In fact, medical malpractice conditions seem to be getting worse in many parts of the country. For example, Virginia and Minnesota have activated JUAs in the last year or so and recently the last two major medical malpractice private insurance companies pulled out of Kansas. The private insurer market is extremely restricted here in South Carolina and the major private insurance company has not insured any new physicians, except new members of insured groups, for over two years. Along with the restricted availability of medical malpractice insurance here and in other states, there has been a tremendous increase in the cost of medical malpractice insurance. While South Carolina's increases have been substantial (class I rate in 1975

was \$250 and class I rate in 1988 is \$1,226), our state has not experienced increases which compare with the increases in other states. We are all familiar with the horror stories of \$100,000 or \$200,000 annual malpractice premiums for physicians in Florida and New York; however, you may not be aware of the fact that in 1987 a Georgia OB-GYN paid five times as much for \$1,000,000 claims made coverage than a South Carolina OB-GYN paid for unlimited occurrence coverage through the JUA and PCF. The North Carolina OB-GYN paid almost three times more than his South Carolina counterpart and only has \$1,000,000 claims made coverage. There is no question that South Carolina medical malpractice costs are among the lowest in the entire country.

In an effort to determine why South Carolina enjoyed this favorable medical malpractice position among the various states, comparisons were made in the medical malpractice insurance operations in other states with JUAs and physician owned medical malpractice insurance companies. The only factor which could be identified as being different is the extensive and direct involvement of physicians in the entire South Carolina medical malpractice process. Physicians serve on the JUA and PCF Boards and Committees as well as the Physician Risk Management Committee. Over 1,000 South Carolina physicians participate in the Physician Risk Management program. Credit for South Carolina medical malpractice success must go to all of the South Carolina physicians and particularly to the leaders of the South Carolina Medical Association who had the foresight to develop the JUA and the PCF and the fortitude and persistence to make them work. □

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SOUTH CAROLINA MEDICAL MALPRACTICE PATIENTS' COMPENSATION FUND

**DONALD G. KILGORE, JR., M.D.*
C. TUCKER WESTON, M.D.****

In 1975 the South Carolina General Assembly passed legislation which created the South Carolina Medical Injury Insurance Reparations Advisory Committee to perform a comprehensive study of medical malpractice conditions in South Carolina and to recommend remedial legislation to improve these conditions. This was a Blue Ribbon committee whose 17 members included senators, representatives, physicians, dentists, hospital officials, defense attorneys, plaintiff attorneys, insurance agents and members of the general public. This committee was jointly chaired by Chief Insurance Commissioner John W. Lindsay and the Commissioner of Health & Environmental Control, E. Kenneth Aycock, M.D. The Committee drafted proposed legislation creating the PCF which was adopted by the General Assembly in 1976. The PCF became operational on July 1, 1977.

The PCF operates in a manner similar to an excess insurance company and provides unlimited coverage that is identical to the basic malpractice insurance. The PCF does not provide any of the malpractice insurance services; it does not issue policies since it actually extends the limits of coverage of the basic malpractice insurance policy; it does not handle claims or defend suits since the PCF law requires the basic insurer "to provide an adequate defense on any claim filed that potentially affects the Fund;" nor does the PCF provide any loss control or risk management services which are provided by the basic insurer. The PCF's function is to monitor potential claims and to make payments on settlements which it considers to be appropriate or to pay its share of court awards.

The PCF operates under the direction of a Board of Governors and through the PCF staff. PCF members deal directly with the PCF staff

and no other organizations or agents are involved in the PCF's operation. The PCF is able to operate with a very small staff and the total operation costs of the PCF are approximately two percent of its revenues. This means that over 98% of each PCF fee dollar goes into the state treasury where it earns interest until such time as it is needed to pay claims. The PCF is totally funded by its members.

Economy is only one of the important features of the PCF. The low cost of protection is very important; however, the amount of protection provided by the PCF may be even more important. The PCF provides unlimited coverage in excess of the member's basic malpractice insurance. This extensive protection is particularly important in the many claims which involve several permanent injuries and huge expenses. The unlimited coverage provides the PCF member with the opportunity to defend himself without jeopardizing his personal assets. Since the entire costs of the PCF are shared by all PCF members, the individual PCF member's exposures are spread over the entire PCF membership of over 4,600 physicians, dentists, hospitals and others. This broad spread of risk reduces everyone's personal risk while they enjoy the maximum protection. Some question has been raised as to the feasibility of unlimited coverage and actuarial studies were made to determine the cost of lower amounts of coverage. When this study showed that a PCF coverage limit of \$5,000,000 would only result in a six percent savings, the PCF Board of Governors did not feel a reduction of coverage was worthwhile.

One of the most misunderstood provisions of the PCF law is the optional payment provision which permits the PCF Board to pay as little as \$100,000.00 per claim per year. Some have interpreted this provision to mean that the PCF could only pay \$100,000.00 per year on any claim. This is completely incorrect and there is no limitation on the amount the PCF can and will pay on any

* 8 Memorial Medical Ct., Greenville, SC 29605.

** P. O. Box B, Columbia SC 29202.

claim. Since the PCF is responsible to the PCF member for the entire amount of the award which is in excess of the basic medical malpractice insurance, plus 14% interest on the unpaid award, it is not in the PCF's best interest nor the members' best interest for the PCF payment to be limited to \$100,000.00 per year if the PCF has the money to pay the award. The PCF has never paid less than the entire award during its eleven plus years of operation. At one time the size of the PCF was limited to four million dollars and the danger of depletion of the entire fund was real. Now the PCF has more than \$23 million in the state treasury plus the ability to raise much more if necessary

sary, and there is no reason to be concerned with the PCF's ability to deal with a large award.

After more than eleven years of operation, the PCF has proven to be successful beyond all expectations. It is providing unlimited medical malpractice protection to the great majority of South Carolina physicians, hospitals and dentists and the cost of this protection is remarkably low. This is essentially a "do it yourself" organization and its success is the result of the extensive involvement and support of the state's physicians and particularly the current and former leaders of the South Carolina Medical Association. □

JUA CLAIMS FUNCTIONS

BOYCE M. LAWTON, JR., M.D.*

WHAT HAPPENS WHEN A CLAIM IS RECEIVED BY THE JUA?

Initially, it is referred to UAC (Underwriters Adjustment Corp.), our claims administrators, who do the initial investigative work. This is usually accomplished in the first 30 days. Their findings determine how the claim will be handled:

- (1) A decision may be made to engage an attorney for the defendant. JUA manager, Cal Stewart, is primarily responsible for selection of the lawyer, from a list of expert defense lawyers;
- (2) UAC may decide to do nothing and await developments, especially if they feel claim is non-meritorious; or
- (3) UAC may push for resolution when the claim is highly defensible.

Our claims administrators will oversee progression of the case and assist in settlement if indicated.

Legally, your JUA policy gives the JUA authority to select the defendant lawyer. Traditionally, we have frequently acquiesced and permitted the defendant to use the lawyer of his choice if he had

strong feelings about the matter. Recently, we have initiated a new policy of selecting the lawyer we feel can achieve the best results, regardless of where the defendant and lawyer live in the state.

Our claims committee's main function is to insure the adequacy of reserves for pending cases and cases in suit. Files are periodically reviewed by our committee.

During the course of our review, we occasionally come upon instances of gross negligence, and/or individuals with multiple claims. These individuals are reported to the S.C. Board of Medical Examiners. They, in turn, initiate their own investigation to determine if any of the Medical Practice Laws of South Carolina or Rules and Regulations of the State Board of Medical Examiners have been broken.

We feel we have a very aggressive defense, skilled and dedicated claims people and excellent defense attorneys which have resulted in our winning 91% of our suits over the last three years and 97% in 1987. □

* P.O. Box 366, Cameron, SC 29030.

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Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon® is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral α-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.^{1,2} Also dizziness, headache, skin flushing reported when used orally.^{1,3}

Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.^{1,3,4} 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.³

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:

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BRIEF SUMMARY

CONTRAINDICATIONS

There are no known contraindications to the use of sucralfate.

PRECAUTIONS

Duodenal ulcer is a chronic, recurrent disease. While short-term treatment with sucralfate can result in complete healing of the ulcer, a successful course of treatment with sucralfate should not be expected to alter the post-healing frequency or severity of duodenal ulceration.

Drug Interactions: Animal studies have shown that simultaneous administration of CARAFATE (sucralfate) with tetracycline, phenytoin, digoxin, or cimetidine will result in a statistically significant reduction in the bioavailability of these agents. The bioavailability of these agents may be restored simply by separating the administration of these agents from that of CARAFATE by two hours. This interaction appears to be nonsystemic in origin, presumably resulting from these agents being bound by CARAFATE in the gastrointestinal tract. The clinical significance of these animal studies is yet to be defined. However, because of the potential of CARAFATE to alter the absorption of some drugs from the gastrointestinal tract, the separate administration of CARAFATE from that of other agents should be considered when alterations in bioavailability are felt to be critical for concomitantly administered drugs.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Chronic oral toxicity studies of 24 months' duration were conducted in mice and rats at doses up to 1 gm/kg (12 times the human dose). There was no evidence of drug-related tumorigenicity. A reproduction study in rats at doses up to 38 times the human dose did not reveal any indication of fertility impairment. Mutagenicity studies were not conducted.

Pregnancy: Teratogenic effects. Pregnancy Category B. Teratogenicity studies have been performed in mice, rats, and rabbits at doses up to 50 times the human dose and have revealed no evidence of harm to the fetus due to sucralfate. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when sucralfate is administered to a nursing woman.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Adverse reactions to sucralfate in clinical trials were minor and only rarely led to discontinuation of the drug. In studies involving over 2,500 patients treated with sucralfate, adverse effects were reported in 121 (4.7%).

Constipation was the most frequent complaint (2.2%). Other adverse effects, reported in no more than one of every 350 patients, were diarrhea, nausea, gastric discomfort, indigestion, dry mouth, rash, pruritus, back pain, dizziness, sleepiness, and vertigo.

OVERDOSAGE

There is no experience in humans with overdosage. Acute oral toxicity studies in animals, however, using doses up to 12 gm/kg body weight, could not find a lethal dose. Risks associated with overdosage should, therefore, be minimal.

DOSAGE AND ADMINISTRATION

The recommended adult oral dosage for duodenal ulcer is 1 gm four times a day on an empty stomach.

Antacids may be prescribed as needed for relief of pain but should not be taken within one-half hour before or after sucralfate.

While healing with sucralfate may occur during the first week or two, treatment should be continued for 4 to 8 weeks unless healing has been demonstrated by x-ray or endoscopic examination.

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Issued 1/87

Reference:

- Eliakim R, Ophir M, Rachmilewitz D: *J Clin Gastroenterol* 1987;9(4):395-399.

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THE SOUTH CAROLINA MEDICAL ASSOCIATION/Joint Underwriting Association Risk Management Program

EUTA M. COLVIN, M.D.*

Discussion regarding the establishment of a physician's risk management program began in the early days of the Joint Underwriting Association when the suggestion of this type activity was brought before the Council of the South Carolina Medical Association by the SCMA Professional Liability Committee, chaired by Frank Biggers, M.D., in early 1976. The committee had based the idea on the fact that the South Carolina Hospital Association had a similar program under contract with the JUA. The SCMA Council and the Professional Liability Committee felt that the SCHA program, while benefiting institutions, did little for physicians covered under the JUA. It was their consensus that a risk management program for physicians and their office staffs was needed to minimize professional liability risk and lessen the volatility of the medical liability environment.

The SCMA Council studied the idea over the next several years and the officers had various meetings with insurance people and risk management and loss prevention specialists, discussing the possibility of contracting for an outside group to handle the program, much as the South Carolina Hospital Association had done. With the help of Charlie Johnson and Blake Williams of SCMA staff, a proposal was developed with the idea that we could do a better job ourselves than the groups who had presented plans to us. The conclusion that we had the interest and the ability in the South Carolina Medical Association's membership, leadership and staff was enthusiastically recognized. We were encouraged in this thinking by Cal Stewart of the State Insurance Department who was our staunch supporter.

I recall a meeting that the Executive Committee of Council had with the four physicians serving on the JUA Board—Boyce Lawton, John Sutton, Bart Barone and Walt Roberts. They were

very receptive to the idea and agreed to present it to the JUA Board and to encourage its approval.

The proposal was presented to the Honorable John W. Lindsey, Commissioner of the South Carolina Department of Insurance and Chairman of the JUA Board, in a letter from Halstead Stone in November, 1980. There continued to be discussions and encouragement and on January 8, 1982, at a meeting of the JUA Servicing Carrier Committee, chaired by Bart Barone, acceptance of the program was recommended to the full JUA Board and was approved with the following objectives:

1. Four regional meetings co-sponsored by SCMA and various county medical societies, and one statewide meeting to be held at the SCMA Annual Meeting.
2. Periodic newsletters on South Carolina medical malpractice claims development.
3. Recruiting and maintaining a comprehensive panel of physicians to review and testify on JUA claims.

A quote from the SCMA proposal seems to be pertinent and is as follows:

"The South Carolina Medical Association will, on an ongoing basis, continue its efforts for additional tort reform with hopes of assuring a more stable insurance marketplace for all South Carolina health care professionals."

The SCMA recognizes the fact that tort reform alone will not assure the creation nor the stabilization of the medical liability workplace. The SCMA believes that the fundamental natures of risk must be minimized to lessen the volatility of the medical liability environment.

Therefore, the SCMA would propose to develop and administer, in cooperation with the South Carolina Medical Practice Liability Insurance Joint Underwriting Association, a program of risk management and loss

* Department of Surgery, Spartanburg Regional Medical Center, 101 E. Wood Street, Spartanburg, SC 29303.

SCMA/JUA RISK MANAGEMENT PROGRAM

prevention for physicians and their office staffs.

The SCMA proposes to provide educational and informational services directed toward the physicians and their office staffs in an effort to support loss prevention programs. The SCMA is prepared to develop and support meaningful programs in this area, programs that should be beneficial to both the JUA and the physician."

The first program on risk management was held in Charleston on April 22, 1982. The following is a quote from the invitational letter to physicians written by Frank Biggers, Chairman of the Professional Liability Committee. "This may be our last opportunity to have some positive effect on this growing malpractice problem." Subsequent meetings were held in Greenville, Florence and Columbia.

The original members of the Risk Management subcommittee were John Hunt of Anderson, Danny Paysinger of Columbia, Roy Skinner of Florence and Bart Barone of Charleston. Their time was largely devoted to reviewing charts and then locating an area physician to review in depth and give advice concerning the defensibility of the case. They also presented programs locally and regionally on the subject of risk management. They did an outstanding job and continue to do so. John Brown of Columbia was added to the committee later because of the number of cases in the midlands area. The author was appointed in early 1983 by Randy Smoak and was designated as Chairman, with the objective of expanding the project and trying to attain the original goals of the program. Billy Fairey of Pawleys Island and Georgetown was added to the committee about two years ago, and he has brought considerable expertise from both his medical and legal backgrounds. Each of these physicians is dedicated to the success of this effort.

The first official meeting of the SCMA/JUA Subcommittee on Risk Management was held on July 13, 1983, and the course of the present program was set. A questionnaire was sent out to all South Carolina physicians asking them to volunteer to serve as chart reviewers, expert defense witnesses, moral supporters to physicians being sued, and generally to be supportive of the program with their suggestions. We had over 1,000

responses to that request and all were very positive.

At that meeting, the motto of the program, "Physicians Helping Physicians," was chosen. Later, at a suggestion from a reader, it was changed to "South Carolina Physicians Helping Physicians." Also, plans were made to start publishing a quarterly newsletter and the first issue came out in January, 1984. It was originally called the "Medical Malpractice Bulletin" but at the suggestion of one of our physicians it was changed to "Medical Liability Bulletin," which is much more appropriate.

We have come a long way and I know that the program has had a very significant beneficial effect on the medical liability situation in South Carolina. Much, much credit goes to Cal Stewart, who has been our ardent supporter and very valuable advisor from the very beginning. Joy Drennen of the SCMA staff provides outstanding support to the program and serves as the Editor of the Bulletin. She coordinates the program and has much to do with its success. Previously, we had excellent staff support from Robin Medlock and Mary Ann West.

I also want to acknowledge the tremendous contributions that Dr. Bill Cantey has made and continues to make to this program. His careful and constructive preliminary review of charts is most helpful to our regional committee members.

SCMA/JUA RISK MANAGEMENT PROGRAM CURRENT ACTIVITIES

- Review of malpractice claims by physicians.
- Depositions and testimony for defense.
- Publication of quarterly Risk Management Bulletin.
- Risk Management Programs:
 - Statewide
 - Regional
 - Medical staffs
 - Medical school faculty/students
 - SCMA Annual Meeting
 - Lending program—audiotapes, videotapes
 - Written materials on professional liability

Now, with some improvement due to recent tort reform legislation, we are encouraged to continue a full and even expanded program. Included in the table is a listing of the activities of the SCMA/JUA Risk Management Program. The real success of this endeavor is due to the cooperation of the physicians of our state, who have taken seriously our motto, "South Carolina Physicians Helping Physicians." □

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THE INTERIM MEETING OF THE AMA

REPORT OF THE SCMA DELEGATION

JOHN C. HAWK, JR., M.D.

RBRVS

It was a foregone conclusion that the most important and contentious issue at the Interim Meeting of the AMA House of Delegates at Dallas, Texas (December 2-7, 1988) would be the Resource Based Relative Value Scale (RBRVS), developed by William H. Hsiao at Harvard University, and funded through a cooperative agreement with the Health Care Financing Administration in response to a congressional mandate to the Secretary of Health and Human Services. The AMA served as a subcontractor in the Harvard Study, as described in several previous reports from the Board of Trustees.

The Board of Trustees, in addition to a preliminary report N, submitted to the House Report AA, a comprehensive 57-page evaluation of the RBRVS. The report by the Harvard group had been released on September 28, 1988, and simultaneously the studies, methods and results were published in the New England Journal of Medicine, with an accompanying editorial by HCFA Administrator, William Roper, M.D. Also the entire October 28th issue of the Journal of the American Medical Association (JAMA) was devoted exclusively to the Harvard Study. Additional material had been submitted in advance to the various state associations.

At the meeting there were a total of nine resolutions which addressed the RBRVS in one way or another. As expected, resolutions from the American College of Physicians, the American Society of Internal Medicine, and the American Academy of Family Physicians asked for support of the RBRVS and development of a gradual but definite phase-in of the program. The resolution from the American Academy of Ophthalmology requested withholding of any endorsement until approval of the methodology and conclusions by the AMA House of Delegates. A resolution from Dr. F. William Dowda asked for opposition to any implementation of the RBRVS. A resolution from the Utah delegation stressed the need for unity in the response to the RBRVS and also asked that the AMA analyze the impact on availability of care, cost of care, and the structure of the nation's health care system. The Hospital Medical Staff Section asked for a sense of restraint and responsibility, with a constant concern for what is best for the patient, and also asked the AMA to work diligently to minimize potential divisiveness. The Resident Physicians Section

requested the AMA to study the effects of the RBRVS on funding of graduate medical education. Finally, in a late resolution accepted by the House, Dr. Joseph O'Donnell, delegate from Illinois, asked that the AMA withhold endorsement of the RBRVS until questions of its impact on patients and concerns about the technical aspects of the study are addressed.

The issue was assigned to Reference Committee A, and the speakers had taken the unprecedented step of arranging for Reference Committee A to meet on Sunday afternoon with no other conflicting meetings so that all delegates would have a chance to attend the hearings. The committee met for over three hours on Sunday afternoon, and then had to continue its hearings Monday morning. There were long lines at all of the microphones, and the testimony was diverse, conflicting, sometimes heated, and before the end was certainly quite repetitious. There was no time limit set on testimony, and everyone had a chance to speak.

The Reference Committee, chaired by Dr. John C. Nelson of Utah, did a monumental job of making appropriate recommendations for amendment of Report AA of the Board of Trustees and were highly complimented for their diligent work. The report emphasized that the AMA reaffirms its current policy in support of a fair and equitable Medicare indemnity payment schedule under which physicians would determine their own fees and Medicare would establish its payments for physicians' services, using an appropriate RVS, an appropriate monetary conversion factor, and an appropriate set of conversion factor multipliers. It was noted that refinement and modifications of the RBRVS are necessary and a number of the problems were detailed. It was stated that there would have to be a blending transition period and that this should have an appropriate balance between minimizing disruptions for physicians and patients while also minimizing the complexity of the process. It was reaffirmed that this indemnity payment system should reflect valid and demonstrable geographic differences in practice costs, including professional liability insurance premiums. Emphasis was placed that geographic differentials should be addressed simultaneously with specialty differentials. Also it was felt that a method of adjusting payments to effectively remedy demonstrable access problems in specific geographic areas should be developed and implemented.

Probably the most important testimony centered on the following section which was revised to state "that the Association strongly oppose any attempt to use the initial implementation or subsequent use of any new Medicare payment system to freeze or cut Medicare expenditures for physicians' services in order to produce federal budget savings".

The House adopted Board of Trustees Report AA as amended with the proviso that the Board report back to the House on further developments regarding the Harvard RBRVS and other issues considered in Report AA at the 1989 Annual Meeting or sooner if

necessary. The House also adopted an added resolution from the Virginia delegation "that the AMA prepare at the earliest possible date informational material regarding the significance of the adoption of Board of Trustees Report AA". It was requested that this material be "positive in nature, concise, readily understandable, and in a form suitable for presentation at informational meetings of hospital medical staffs, local and county medical societies, and specialty groups". The resolution asking that the AMA study the effects of the RBRVS on graduate education was amended to include undergraduate medical education.

I believe that nearly all delegates received a large number of communications both before and after the Interim Meeting, from individual physicians and societies, recommending adoption or rejection of the RBRVS. Obviously the AMA cannot please everyone completely. I personally believe that the final action of the House was about as satisfactory as could be obtained. Subsequently we received a "clean copy" of Report AA of the Board of Trustees, as revised by the House. The internists and family practitioners, including members of our own delegation, might wish for immediate implementation of the RBRVS, since it would increase payments to them. On the other hand, various surgical specialty groups and those internists who carry out various "procedures" would prefer that it be amended, delayed, or completely "killed". In my opinion the House of Delegates acted in a wise and judicious manner.

It should be noted that the House was considering this matter under the implied, and perhaps actual, threat that if the AMA could not reach some sort of consensus about the RBRVS that it might lead Congress to adopt a much more onerous capitation plan for all Medicare patients.

REGISTERED CARE TECHNOLOGISTS

The RCT program, which had been discussed at length at the Annual Meeting of the AMA, was again the subject of debate both in Reference Committee C and on the floor of the House. Testifying to the reference committee, the representative of the American Nurses Association indicated "that the dialogue between the AMA and ANA on the RCT was at an impasse, but that new constructive relationships between nursing and medicine were developing at the state and local levels". It should be noted that the ANA represents a relatively small percentage of all of the nurses, probably about 20% in our own state.

Before the House was an excellent Report Z from the Board of Trustees, describing implementation thus far of the program adopted by the House in June. This announced the Board's decision to evaluate one or more of the existing programs that are most similar to the proposed RCT program and to implement a pilot project to demonstrate and evaluate the training of RCTs. A resolution from Florida asked that the AMA "back off" and seek alternative proposals to the RCT program, and recognized the

concern of the ANA and other nursing organizations.

The reference committee, after hearing all testimony, provided a substitute resolution "that the American Medical Association continue to seek solutions to the problem of the shortage of bedside care givers, in addition to the Registered Care Technologists Program". Amendments from the New York delegation would have changed the title of the resolution from "Registered Care Technologists" to "Addressing the Nursing Shortage", would have eliminated the above Resolved, and would have added a Resolved which in effect asked for the AMA just to work with the ANA and other nursing organizations. This the AMA has done for many years, without complete success.

The motion to change the title and to delete the Resolve of the reference committee was defeated. I personally spoke to this, as I believe, from my personal experience as a patient, that there is a need for additional bedside care givers, who would be of assistance to the nurses, but would not have to have all of the training of nurses. The House agreed with the reference committee, but added the additional New York Resolve "that the American Medical Association, recognizing the concerns of our partners in health care, the nursing profession, work together with the American Nurses' Association and other nursing organizations to address the nursing shortage and to continue to seek innovative ways to alleviate the acute shortage of bedside care providers, and that the Board of Trustees report to the House of Delegates at the Annual Meeting in 1989". I had received in advance a request from the President of the South Carolina Nurses Association to try to defeat the RCT program and had replied to her my personal feelings on this matter. The House of Delegates apparently agreed with my thoughts that this RTC program should be tried, as originally provided, to see whether it will be successful or not.

ADDRESS OF THE PRESIDENT

Undoubtedly the address of Dr. James E. Davis, AMA President, played a major role in the decision of the House to continue implementation of the RCT program. He called the AMA-proposed "Registered Care Technologists" an idea whose time has come and he urged that an opportunity be given to try it out in order to provide more bedside care givers.

In regard to the RBRVS, Dr. Davis urged physicians to "remain unified and not split into warring factions". He added "American Medicine cannot afford a divided profession. Indeed, if we divide, American Medicine will not survive as we know it today".

Dr. Davis also reported a very favorable response to the challenge given in his Inaugural Address for physicians "to tithe four hours a week to community service". He said he had received many favorable communications from physicians, medical organizations, and public groups, and stated "they tell me they

agree that physicians need to be more extensively perceived as caring individuals who take a vital part in community life".

SPEAKER ON ANTI-TRUST

An address by Charles F. Rule, head of the Anti-Trust Division of the U.S. Justice Department, Tuesday morning was an unexpected and unwelcome addition to an already crowded program. He warned the delegates that felony criminal charges will be leveled against competing physicians if they fix fees, allocate patient territories, or boycott insurers. He was at times pedantic, at other times threatening, and appeared to be trying to intimidate physicians into hiring lawyers to keep them out of trouble. The address was so poorly delivered that many of us would have paid little attention to it, except that the content was so offensive. Just before the midday break, a delegate from Houston, Texas, was recognized at microphone and gave a highly charged, emotional speech, which I think reflected the opinions of many of the delegates. He had gone to considerable trouble to get an early copy of the speech, and read excerpts from it with appropriate comments.

I had heard earlier that Mr. Rule was a self-invited guest, but later we were told by Dr. James Sammons, AMA EVP, that he had been invited to give this address because of problems that physicians in several areas of the country had incurred with alleged anti-trust violations, and in which the AMA had also been involved. This was intended to be an "educational" address, but it certainly was received as an attempt at intimidation.

At the midday break, I overheard a comment by Dr. Harry Schwartz (Ph.D.) who is a well-recognized medical commentator for the New York Times, Private Practice, and other publications, as well as the author of a book entitled The Case for American Medicine. Talking to Dr. George Alexander, the Houston Delegate, Schwartz said "George, you are the hero of this Convention". And indeed he was!

"MEDICALLY UNNECESSARY" STATEMENTS

The House commended the Board of Trustees for its activities on this important issue, but took notice that it is not yet completely resolved by adopting the following policies: (1) That the American Medical Association continue to call for the repeal of the "medically unnecessary" provisions of Section 9332 (c) of the Omnibus Budget Reconciliation Act of 1986; and (2) That until such time as repeal is achieved, the American Medical Association urge the Health Care Financing Administration to require that there be stated on the medically unnecessary notices mailed by carriers (a) the basis for the denial; (b) the name, position, and title of the person to be contacted regarding questions about the review; and (c) the screening criteria or parameter used in denying payment for the service.

PROFESSIONAL LIABILITY

The House received a report describing the work of AMA's Special Task Force on Professional Liability and Insurance and also the Advisory Panel on Professional Liability. A continuing study relating to expert medical witnesses was described. The House adopted policy calling on the AMA to establish a policy that each physician should be able to maintain what he or she determines to be an appropriate amount of liability insurance except where otherwise required by state law; and to support the policy that physicians not be required to divulge the exact amount of their professional liability coverage as a condition of hospital medical staff privileges but should be allowed to provide verification that the minimum level of coverage required by the medical staff bylaws is in effect.

SCMA RESOLUTION

As directed by the SCMA House of Delegates, our delegation submitted one resolution (Number 70) in regard to Hospitalization Review Requirements of Self-Insured Companies, pointing out that these companies are not subject to satisfactory standards, and that many of them have adopted review requirements that may be inconsistent with good medical care. Our resolution asked the AMA Board of Trustees to thoroughly investigate current governmental and/or other controls over self-insured companies to determine whether there is adequate uniformity of requirements for initial and continued hospitalization review and report to the House of Delegates on the feasibility of seeking such changes which would enhance the accountability of self-insured companies in the administration of their respective health insurance plans. The Reference Committee made minor changes in the Resolved, which included that the report back to the House be at the 1989 Interim meeting rather than the Annual Meeting. The amended resolution was adopted without dissent. Dr. Robert D. Burnett of Los Altos, California, member of the Council on Medical Service, and its former chairman, told me that he considered this the most important resolution submitted to the House.

OTHER IMPORTANT ITEMS

Actions of the House in regard to many other issues have already been reported in the AM News in the issues of December 16th and December 23/30. You are encouraged to read these two issues carefully.

COMPOSITION OF THE HOUSE

There were 423 delegates seated at this meeting, including one new specialty society, The American Academy of Pain Medicine, which was granted a voting delegate at this meeting. Two applying societies, both in the same field, the American Society for Surgery of the Hand (applying for the second time) and the American Association for Hand Surgery, were turned down by the

House, upon recommendation from the Board. There are now 77 delegates representing national medical societies, contrasted with 336 delegates representing state medical associations, and 10 Section and Service delegates.

The House considered 66 reports and 129 resolutions, a large volume of business, but not unusually so for an Interim Meeting. Of course the RBRVS, as discussed above, was of such importance as to be very time consuming.

HOUSE TAKES SHORTCUT

In mid-morning on Wednesday, with tight plane schedules staring them in the face, and with important commitments at home, the delegates adopted a very unusual procedure, unprecedented in my memory, to expedite the conclusion of scheduled business. After only the first item of Reference Committee F had been considered, and with two other committee reports to go, a motion was made to put the entire remainder of the committee report on the "Consent Calendar". This meant that for any item to be debated, there would have to be a request to extract it from the calendar. Otherwise the items were simply read by number, and the recommendation of the Reference Committee voted upon. The same procedure was utilized for the last two committee reports. Only a few items were extracted, and debate was limited.

I personally think that allowing this tactic was a mistake. Although all items of business had been debated in the Reference Committees, and then brought back to the House in well-considered written reports from the committees, there may have been some items which needed to be "aired" on the floor, which were passed over with such a hasty procedure. The most important items of business (as judged by those assigning the material to the committees), had been discussed at length (and at times almost ad nauseam) in the consideration of the earlier committee reports. Despite a two-minute restriction on debate by any one person, there had been a considerable waste of time. The House had been embroiled in time-consuming hassles, points of order, and counted votes, and of course additional time was taken for the speech by Mr. Rule. I believe the House, under firm control by the Speakers which might at times appear restrictive, must discipline itself to more expeditious consideration of early items of business, to pace itself, so as to reserve adequate time for consideration of all of the items of business.

GUIDELINES FOR CAMPAIGN ACTIVITIES

At the Interim Meeting of 1987 the House adopted Resolution 61, designed to reduce campaign expenditures, and among other things restricting room size for campaign events. At Annual 88, this proved to have a number of problems, including fire hazards, overcrowding, etc. The A-88 reference committee recommended that this problem be addressed by the Convention Committee on Rules and Order of Business. I was asked to chair this committee. We

considered all of the problems in considerable detail, with extensive input from both of the Speakers. We brought in recommendations which were adopted by the House and which are essentially as follows:

1. That no state, specialty society, or coalition have more than two nights of hospitality, only one of which may be held in a public function room.
2. That no candidate shall have more than two nights of organized campaign activities (e.g. standing in a receiving line or distributing campaign paraphernalia), only one of which may be held in a public function room.
3. That lavish and extravagant campaign events be eliminated.
4. That the state where the AMA meets should feel no obligation to sponsor a "host state party" and that host states are encouraged to make a charge to cover expenses for these non-campaign social events.

SMOAK ELECTED AMPAC CHAIRMAN

We were all highly gratified that the AMPAC Board, at its meeting on Friday, December 2nd, elected as its Chairman Randy Smoak, a Past President of the SCMA and Chairman of the SOCPAC Board. This is indeed a signal honor and a real accomplishment. We congratulate Randy on his achievement and know that he will do a splendid job during the coming year.

SCMA DELEGATION

The SCMA had a full delegation at the meeting, including Randy Smoak, Don Kilgore and John Hawk, delegates; Gavin Appleby, Charlie Duncan and Walt Roberts, alternate delegates; Tommy Rowland, President; Dan Brake, President-Elect; Chris Hawk, Chairman of the Board of Trustees; Carol Nichols, Secretary; Roger Gaddy and Steve Hulecki, delegate and alternate delegate to the Young Physicians Section. Bill Mahon and Barbara Whittaker were present from the staff.

Also Bob Schwartz, Greenville, Young Physician delegate of the American Academy of Physical Medicine and Rehabilitation Therapy, attended some of our caucuses. Several students from both MUSC and the University of South Carolina attended the medical students section. Mark Newberry, Vice-President of Academic Affairs at MUSC, was also with us for part of the meeting.

Again, your delegation thanks the members of the Association for the privilege of representing you. We also invite you to meet with us, and to attend all South Carolina and Southeastern Delegation functions at any AMA Annual or Interim Meeting.

THE SCHA LOSS CONTROL PROGRAM: REDUCTION IN LIABILITY EXPOSURES FOR HOSPITALS AND PHYSICIANS*

CHERYL KOOB**

JANE BRYANT***

Americans have been characterized as willing to sue anyone for any reason. Hospitals and physicians share concern over the increasing number of suits filed on health care related issues.

To reduce liability claims for hospitals and physicians, the South Carolina Hospital Association (SCHA) developed the Loss Control Program in 1975. It is funded by the Joint Underwriting Association (JUA) and the Insurance Reserve Fund (IRF) which currently insures 54 hospitals in the state.

In 1988, a representative from the South Carolina Medical Association was appointed to the SCHA Loss Control Task Force to ensure that physician perspectives are incorporated into the Loss Control Program.

The initial concept of the program was to reduce liability exposures in member hospitals. Over the years, hospitals have been surveyed annually for risks of professional liability, premises liability exposure, and clinical apparatus liability exposure. The professional liability component is performed by a registered nurse Risk Management Consultant. The premises liability and clinical apparatus components are performed by a Clinical Engineer.

In the first 11 years of the program, a general survey was conducted of the entire hospital. As high risk areas, such as obstetrics, anesthesia, and emergency room, resulted in a greater proportion of malpractice claims, it was felt "focused" surveys would be more beneficial in decreasing liability claims. Concentrating on areas where medical care had the most potential for having liability claims became the concept that is used at the present time.

The professional liability component consists of medical record reviews (to assess documentation practices), review of policies and procedures, review of the physician credentialing system, occurrence reporting system, and the quality assurance and risk management programs. The premises liability component consists of a review of the safety program, review of surveys performed by other agencies and reports, review of the hazardous materials program, review of the security program, and a general survey of the physical plant. The clinical apparatus component consists of a review of all clinical apparatus in the area to be surveyed, especially high risk equipment. Also, each year the previous years' recommendations are monitored for progress.

The risk management consultants use state (i.e., DHEC) and national (i.e., Joint Commission, ACOG, ACEP, ASA, OSHA, EPA, etc.) standards, as well as sound risk management practices, as criteria when surveying a hospital. A written report with recommendations is provided each hospital and distributed to appropriate personnel after the annual survey. The risk management consultants provide assistance, if requested by the hospital, in correcting deficiencies. Hospitals are requested to respond to the recommendations made by the consultants within 30 days. Written responses are returned to the consultants and follow-up is performed if indicated.

Last year, the focus of the annual survey was obstetrics. Recommendations were given to hospitals across the state to bring them up to date with state and national standards in this area. This year emergency rooms were targeted because of the high frequency of liability claims in this area. Also, hazardous materials management programs were reviewed because of risk management concerns about hospital waste.

The most frequent recommendations in these areas have been in regard to documentation practices in the emergency room and ways to improve or enhance hazardous materials management pro-

* From the McNeary Insurance Consulting Services, Inc., and the SCHA Loss Control Task Force.

** Consultant, McNeary Insurance Consulting Services, Inc., PO Box 220926, Charlotte, NC 28222.

*** Chairperson, SCHA Loss Control Task Force, and Risk Manager, Greenville Hospital System, 701 Grove Road, Greenville, SC 29605-4295.

SCHA LOSS CONTROL PROGRAM

grams to comply with federal and state regulations.

The risk management consultants and SCHA continually update hospitals, through memorandums, newsletters, and educational programs, on risk management issues and how to reduce liability exposures for hospitals and their medical staffs. SCMA and SCHA are in the process of developing a joint educational program which will address the Loss Control survey findings related to emergency rooms. Collaboration between hospitals and physicians is essential in ensuring that liability is reduced.

The Loss Control Program will continue in its effort to reduce liability exposures thereby mitigating or reducing liability claims in the state of South Carolina. As other areas become identified as high risk, emphasis will be placed on controlling risk in those areas. The very essence of the Loss Control Program is to assure that every patient who enters the health care system is provided quality health care. As hospitals and physicians identify their risks and implement practices which reduce their liability, they can work together more effectively in ensuring that high quality patient care is provided. □



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JANUARY 1989

MEDICARE UPDATE

Blue Cross and Blue Shield of SC held a series of workshops in December in order to explain the 1989 Medicare program. It was explained at the workshops that you should write Professional Reimbursement (BC/BS of SC, I-20 and Alpine Road, Columbia, SC 29219), if you wish to obtain a copy of the clinical laboratory fee schedule. It was also pointed out that there was a December Medicare Advisory planned which would explain the HCFA changes in Holter monitoring billing made since the October Advisory.

A special five percent bonus will be reimbursed quarterly to physicians who provide services in Classes I and II Health Manpower Shortage Areas (HMSAs). The correct HMSCA code should be included on each Medicare claim. BC/BS also instructs you to record the code for Classes III and IV HMSAs.

The following counties are entirely HMSCA and the correct HMSCA class is given after the county name. You should put the correct HMSCA code on your claim:

ALLENDALE	3	JASPER	4
BARNWELL	3	LEE	3
<u>CALHOUN</u>	<u>1</u>	MCCORMICK	3
<u>CLARENDON</u>	<u>2</u>	MARLBORO	4
DILLON	4	SALUDA	3
FAIRFIELD	3	<u>UNION</u>	2
HAMPTON	4	<u>WILLIAMSBURG</u>	2

Parts of the following counties are designated as a HMSCA:

() ABBEVILLE	() GEORGETOWN	() GREENWOOD
() BAMBERG	() Horry	() LANCASTER
() BEAUFORT	() KERSHAW	() LAURENS
() CHESTER	() MARION	() ORANGEBURG
() CHESTERFIELD	() SUMTER	
() COLLETON	() DARLINGTON	

If you practice in one of these counties, Blue Cross & Blue Shield of SC will send you a map which shows which areas are designated as a HMSCA and the correct code to use for your claims.

If you practice in a "split" county, you need to identify on the list each county where you practice and send it to: Attention: Office of the Director, Medicare Service Center, Suite 1300, Fontaine Business Center, 300 Arbor Lake Drive, Columbia, SC 29223.

MEDICAID UPDATE

AIDS Waiver Program

As of August 1, 1988, the State Health & Human Services Finance Commission initiated an AIDS Waiver Program approved by HCFA. This waiver will provide home and community-based services to eligible Medicaid recipients diagnosed with acquired immune deficiency syndrome and AIDS related complex.

Services which are covered as part of the waiver include: private duty nursing, day care services, personal care aide services and home delivered meals consisting of modified and therapeutic-diets. Services for counseling, foster care and hospice are also covered, as are traditional Medicaid Services (i.e., drugs, physicians, hospital).

Home and community-based services for recipients diagnosed with AIDS will offer the individual and the SC Medicaid program alternatives to institutional care.

South Carolina is one of five states in the country to receive funding for the AIDS Waiver Program. Specific policy guidelines are available from SCHHSCF.

Obstetric Care - Fee Updates

Effective January 1, 1989, fees for some charges of Obstetric care increased. The reimbursement for those procedure codes includes:

<u>CPT Code</u>	<u>Fee Increase (as of 1/1/89)</u>
59410-Vaginal Delivery	\$100.00
59400-Cesarean Section	\$100.00
59420-Antepartum care only	\$ 7.00
59430-Postpartum care only	\$ 7.00
S1500-Initial OB exam	\$ 50.00

Emergency Room Visit Updates

Effective January 1, 1989, Medicaid will follow Medicare's updated policy for use of the unusual or special services codes listed in the "Special Services and Reports" section of the CPT-4 coding manual.

Providers should submit charges for their normal services under the procedure code for the basic procedure performed, and if any

unusual service is performed, submit charges with one of the special service procedure codes (99050 - 99065).

In addition, non-hospital based physicians should begin using the 90500 - 90580 series of codes for ER visits, adding a 26 modifier to the appropriate code. If the ER visit was after regular office hours, the physician may also submit a charge for procedure code 99064. This would be an additional charge to cover the special service of going to the hospital after normal working hours.

EXPANDED "PERSONAL CARE" PROGRAM

Earlier this month the SCMA held a press conference to announce implementation of our newly revised "Personal Care" program. By now you should have received a mailing regarding the SCMA Personal Care program designed to assist non-participating physicians in better serving their Medicare patients. At the direction of the SCMA House of Delegates in 1988, the program has been revised to establish an eligibility certification protocol. Under the expanded program, local aging service providers will provide eligibility cards to qualifying Medicare patients (up to 150% of poverty - \$8,250 for a one-person family or \$11,100 for a two-person family) to be presented to the "Personal Care" physician. The physician retains the right to accept assignment on an individual basis regardless of whether or not the patient has been issued an eligibility card; however, the SCMA strongly encourages "Personal Care" physicians to accept assignment on these eligible patients.

We urge that you carefully study the information furnished in the mailing. Non-participating physicians who did not enroll earlier are encouraged to do so. Also, physicians who are changing their par status to non-par this year should seriously consider enrolling.

If you have questions or need additional information, please call Barbara Whittaker or Melanie McLendon at SCMA Headquarters.

PRO UPDATE

On December 1, HCFA contracted with Medical Review of North Carolina (MRNC) for Medicare review in SC. Actual Medicare review is expected to begin in February or March.

At the present time, MRNC is working with SCMA and all SC specialty societies in reviewing proposed licensing criteria and establishing a committee responsible for review in SC. MRNC has hired Blake Williams, formerly employed by SCMA and BC/BS of SC, to direct their review in SC.

Medical Review of NC, Inc., will conduct seminars for physicians' office staffs (especially those responsible for preadmission review) from 10:00 a.m. to noon as follows:

Wed., Feb. 1	Greenville Hilton, I-385 at Heywood Rd.
Thurs., Feb. 2	Columbia Marriott
Mon., Feb. 6	Holiday Inn at I-95, Florence
Wed., Feb. 8	Mills House, Charleston

Your office will receive a letter from MRNC regarding these workshops. Workshops for hospital personnel will be conducted at these same locations in the afternoon.

NEWS FROM THE STATE HOUSE

Following are new chairmen of committees of the South Carolina House of Representatives: Donna Moss, Gaffney, - Medical Affairs Committee, and Robert Brown, Florence - Labor, Commerce & Industry Committee. Sarah Manly, Greenville, has been elected to the House of Representatives to fill the unexpired term of Chick Rice (deceased).

Chairmen of Senate committees remain virtually unchanged for 1989.

DOCTOR OF THE DAY

Volunteers are still needed for the Doctor of the Day for the 1989 session of the SC General Assembly. If you can serve as Doctor of the Day on a Tuesday, Wednesday or Thursday during March, April or May, please call Jan Maynard at SCMA Headquarters to schedule a date.

AIDS UPDATE

Additional Federal funding has been received by DHEC for the Retrovir Program. However, the amount of funding was only enough to allow DHEC to maintain its current case load plus add the applications already on hand. Therefore, DHEC is unable to accept any further applications. DHEC regrets this decision, but continues to suggest that physicians refer appropriate applicants to their local Department of Social Services for coverage under the Medicaid Waiver Program.

OCCUPATIONAL EXPOSURE TO BLOOD-BORNE DISEASES

The Occupational Safety and Health Division of the SC Department of Labor has issued an information memorandum, #88-x-77, which addresses enforcement procedures for occupational exposure to HBV, HIV and other blood-borne infectious agents in health care facilities.

The memorandum provides procedures and guidelines to follow when conducting inspections and issuing citations for health care workers potentially exposed to these infectious agents. Also included in the memorandum is the June 1988 update from the Centers for Disease Control regarding universal precautions for prevention of blood-borne pathogens in health-care settings and

checklist evaluations of employer training and education programs.

For further information, call Melanie McLendon or Kim Fox at SCMA Headquarters. To obtain a copy of the memorandum, contact the Office of Public Information of the SC Department of Labor at 734-9612 or 734-9661.

RED CROSS TRANSPLANT PROGRAM

Since 1985, the Southeastern Transplantation Services Division of the American Red Cross has been responsible for collecting human tissue used in some 5,000 transplants. Although less known than more publicized heart, lung and kidney transplants, bone grafts are second only to blood as the most transplanted human tissue. Nearly 200,000 patients require bone allografts each year in the U.S.

Bone transplantation is used to treat victims of osteosarcoma, scoliosis, disfiguring injuries, congenital deformities and orthodontic diseases. Bones and tissue can be donated by males age 15-70 and females age 15-65, or on an individual basis for other age groups.

Bones and tissue can be extracted from a donor whose heartbeat and respiration have ceased, provided the surgery takes place within 24 hours of death and the body is refrigerated. One donor can benefit as many as 50 recipients.

To learn more about donation and transplantation, call the American Red Cross at 1-800-922-5986 or 251-6153 (statewide).

1989 CPT-4 CODE BOOK AVAILABLE

Remember to purchase your 1989 Physician's Current Procedural Terminology (CPT-4) book. This book, revised and published on an annual basis, is a listing of descriptive terms and identifying codes for reporting medical services and procedures. Since medical nomenclature and procedural coding is a dynamically changing field, new procedures are developed and old procedures become obsolete, it is a good idea to keep a current book on hand.

To purchase your CPT-4 book, write to: Book and Pamphlet Fulfillment: OP-341/8, American Medical Association, PO Box 10946, Chicago, IL 60610-0946. VISA and MasterCard orders may be placed by calling 1-800-621-8335. Copies are \$25.60 for AMA members and \$32.00 for non-members.

AMA/GM EDUCATIONAL EFFORT: SAFETY BELTS

Available on loan from the SCMA Library is the latest AMA/General Motors video project kit which is part of the continuing educational project promoting wider use of safety

belts. The kit contains a two-part videocassette and a teacher's guide. The two films on the videocassette were prepared for young students of specific ages. "Safety Belts: For Dummies or People" is designed for youngsters in the six-to-eight-year range and encourages them to use seat belts. "The Game of Life" is geared for students in junior high and demonstrates the effects of alcohol consumption on driving abilities. To obtain the kit on loan, contact Melanie McLendon or Kim Fox at SCMA.

AMA TELECONFERENCE VIDEOTAPES

The AMA announces the availability of two 90-minute videotapes containing full proceedings of HSN teleconferences on "Beyond Tort Reform: New Developments in Professional Liability" and "Health Legislation 1988: Update and a Look Toward 1989." Copies may be purchased for \$75 each or you may request copies on loan for a seven-day period for a \$25 shipping and handling fee. To place orders for either purchases or loan use, call Irene Foster, AMA Division of Television, Radio and Film Services, (312) 645-5102.

CONFERENCES TO BE HELD

The second annual Palmetto State Medical Student Conference will be held January 20-21, 1989 in Charleston. Registration is \$15.00 per person. For further information, contact the MUSC Student Activities Office at (803) 792-2693.

A Joint Commission on Accreditation of Healthcare Organizations program to help hospitals with 1989 standards will be held February 16-17 at the Radisson Hotel in Columbia. This pre-survey tool will assist hospital personnel in interpreting and applying standards in the 1989 edition of the Accreditation Manual for Hospitals. For further information, contact Doris Clevenger, SCHA, 796-3080.

CAPSULES

Vasa W. Cate, M. D., has joined the staff of Blue Cross and Blue Shield of South Carolina, Medicare Division, as part-time medical director. Dr. Cate will continue with his private practice in Lexington County.

Milton D. Sarlin, M. D., was chosen the 1988 Medical Executive of the Year by the Medical Group Management Association.

Anne-Marie C. Leventis, M. D., Family Practice resident at the Anderson Family Practice Center, is one of 25 residents in the country to receive the AMA/Burroughs Wellcome Leadership Award. She was cited for her volunteer work with a local "Doctors Ought to Care" group to counsel schoolchildren to shun drugs and alcohol and for assisting a teen pregnancy prevention council.

THE SOUTH CAROLINA DENTAL ASSOCIATION AND THE S.C. MEDICAL MALPRACTICE JUA

JAMES H. GAINES, D.M.D.*

The Legislature passed enabling legislation to allow the creation of the South Carolina Medical Malpractice Joint Underwriting Association (JUA) in 1975. At that time dentists in South Carolina were not nearly as concerned about this subject as were the physicians.

By and large, dentists had not then generally been discovered as targets for significant malpractice actions. As a result, we did not draw the immediate concern of the insurance industry that befell physicians and surgeons.

We are told that insurance companies back then generally had us lumped under something called "miscellaneous professional liability," wherein a number of so-called low risk professions were put together for experience and rating purposes. Apparently this had been customary for a number of years. As a result, the insurance industry really didn't know what the specific dental risk factors were, and consequently rates were low and availability was no problem.

The American Dental Association (ADA) was prophetically aware of the potentiality of coming problems in the malpractice area. Nineteen years ago they set a program of protection into motion with CHUBB as the carrier, which became known as the ADA Professional Protector Plan (P.P.P.).

This "package" policy combined all the areas of coverage normally needed in a dental office so far as property and liability protection was concerned. It automatically included professional liability (as we preferred to call it) for at least \$1,000.00.

As a result of this foresight, S.C.D.A. co-endorsing The Professional Protector Plan provided our members with the availability of a first-class occurrence professional liability policy at reasonable rates.

By 1978, except for the Association Plan, The South Carolina dental malpractice marketplace had largely dried up. Out of concern for our

fellow dentists who were non-members and the lack of a competitive market, we appealed to The Insurance Commission that an emergency did, in fact, exist. Subsequently members of the dental profession became eligible for JUA coverage and Dr. George P. Hoffman of Greenville became dentistry's first JUA Board Member.

Most dentists are members of The South Carolina Dental Association. Since our sponsored coverage stayed on an occurrence basis and the rates remained reasonable, only a minimal number of South Carolina dentists became insured with the JUA. S.C.D.A. had a good program, well-administered, providing many needed facets of coverage, so there was no reason to leave it.

A few years ago storm clouds appeared and matters began to worsen. The insurance carrier (CHUBB) we had used for years decided for their own reasons they no longer would provide coverage. A replacement carrier (CNA) was obtained with all hopes that it would work out.

After several uncertain years, the shoe fell. The new carrier unilaterally announced that coverage would only be provided on a claims-made basis and difficulties in continued negotiations as partners were appearing. For these reasons and others, the ADA withdrew endorsement leaving it to the state associations to determine their best course of action since the Professional Protector Plan (P.P.P.) would still be marketed.

The South Carolina Dental Association continued to support the P.P.P. until the claims-made policy form was effectively filed in South Carolina. We then withdrew our endorsement.

We have always felt the occurrence form provides the greatest measure of protection for our members for their premium dollar and commend the JUA and PCF for remaining on that preferred form over the years. With it there are no new questions of coverage, additional premiums or other contingencies down the road. Not so with the claims-made policy.

The particular claims-made policy we were

* 870 Cleveland St., No. 2-C, Greenville, SC 29601.

THE DENTAL ASSOCIATION AND THE JUA

offered was, perhaps, as good as any on the market. There are, however, some built-in problems peculiar to such coverage. Great care is required at application time (annually) to adequately inform the would-be carrier of any possibility of any known circumstances which may lead to claim. Failure to adequately inform the carrier (to their satisfaction) of any such happening would most likely lead them to not providing coverage for a claim which had its origins prior to the policy date. With an occurrence policy there are no such problems since the prior occurrence policy would defend against the claim.

Here in South Carolina we dentists are fortunate to have the availability of a reasonably priced occurrence form professional liability insurance policy through the JUA as an option in our insurance planning. It is a privilege not universally enjoyed.

LOSS PREVENTION

The old Professional Protector Plan provided loss prevention seminars, workshops and publica-

tions. They worked with sponsoring state associations in these areas and through professional assessment committees of those state associations.

The South Carolina Dental Association has an on-going Dental Risk Management Committee. We publish a Risk Management periodical (similar to the one published for physicians by the S.C.M.A.) and utilize programs prepared by the American Dental Association, such as Risk Prevention Manuals, a series of video tapes which are regularly updated, and seminar-type programs available to both local and state dental associations. The Oral Hygienists have developed ongoing programs for their specialty inasmuch as their requirements differ from other dentists.

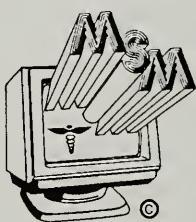
The JUA is now the principal provider of professional liability insurance for South Carolina dentists. We will work closely with the JUA in helping to continue to experience a low level of claims by providing a comprehensive dental risk management program as is being done with the South Carolina Medical Association and the South Carolina Hospital Association. □



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MALPRACTICE PROPHYLAXIS

JOHN R. HUNT, M.D.*

"I still can't believe that my long-time doctor was sued for malpractice and the fact that he lost is even harder to comprehend," confided a mutual patient and friend to me recently. As we discussed our mutual acquaintance, my friend was genuinely surprised to learn that nationwide, malpractice suits are on the rise as seven out of ten doctors have been or are being sued. While our experience in South Carolina is somewhat better than the national experience, malpractice actions are affecting you or me or our dedicated, competent, devoted colleagues with striking regularity. Certainly most physicians today realize the litigious nature of the society in which we live and practice and have altered habits or taken precautions which they feel will be helpful in avoiding the circumstances which might lead to a malpractice suit. Yet it seems that the "Malpractice Crisis" continues as some doctors aren't able to either act responsibly or fail to take adequate measures to protect themselves. Interestingly enough, about one-half of physicians sued have been the target of a previous liability claim. Whereas nationally, 70 percent of all malpractice claims were felt to be without merit and were closed without any payment, 30 percent of the cases were felt to have grounds for suit. Could these cases be prevented by "Malpractice Prophylaxis?" Obviously, there are things that all doctors can and should do to prevent an action from happening in the first place. The purpose of this paper is to review seven areas which are frequent liability pitfalls.

1. Communication: We must talk with our patients and their families. We are criticized for taking on too much work, for being on too many committees, for seeing too many patients in too little time. As the proverb recounts, "Pay me now or pay me later," we must give our patients enough time now or risk the prospect of devoting a tremendous amount of time and effort and anxiety defending ourselves from a legal action. If a physician has taken the time to talk and listen to the patient and the family, he will almost never be

sued, no matter what the outcome. He is thought of almost as a member of the family.

Non-verbal communication is just as important as what is said. We must learn to avoid the "Rolex Bedside Manner." Our patients need to see us as one of them. They need to feel that we are the "same kind of folks" as they are. If they feel that we are talking down to them, they will resent it. The resentment is just the fuel which is needed to provoke some patients or families to seek legal counsel if things don't go as expected.

2. Referral of Hostile Patients: We must learn to refer patients we don't feel good about. Within the first few minutes of interacting with a patient, most of us have very definite feelings about whether we like that individual and whether we will get along well. This requires that both patient and physician develop a trusting relationship with each other. If the "vibrations" which we get are bad, we need to realize that the patient is probably getting a bad feeling about us also. We need to seriously consider referral of that case. We have no obligation, except in an emergency situation, to take a case about which we have uncomfortable feelings. Besides the fact that most of us don't need additional patients, we certainly don't need the hostile patient who is likely to cause us much grief down the road. Even though we are not getting along with a given patient, we must realize that the physician down the street may get along famously with that individual. Rather than just asking someone to "get out of my office," it is much more honest to sit down and explain to a hostile patient that "we don't communicate very well, and I don't think I can give you the kind of service that I know you want and that your medical condition deserves. I'm going to refer you somewhere else."

Likewise, we should pay attention to our office nurse or receptionist. If they have a real personality conflict with a given patient it may be best to refer that patient.

3. Informed Consent: We need "informed consent" for anything we do that invades a patient's body. We should be in line with what others

* 703 N. Fant St., Anderson, SC 29621.

MALPRACTICE PROPHYLAXIS

in our area in the same speciality are doing in terms of written consents. However, for any invasive procedure, we, the physicians, must explain the situation such that an average "reasonable man" will understand the options he has, the probable outcomes and the potential complications of any given choice which he makes. He, the patient, should make the choice to proceed with a given treatment plan. Most attorneys presently recommend that a formal consent be obtained for anything that is not "routine." An explanation which has been suggested is that "the courts are responsible for making us have to get this formal consent." Presently in South Carolina, it is not clear just how far one should go in obtaining a formal consent for any non-routine (IV's, Subclavian lines, Blood Transfusions, etc.) procedure. Many physicians are concerned that too legalistic an approach may sensitize patients legally and make them more likely to think in terms of a legal solution to any perceived problems.

Many questions exist about what constitutes adequate informed consent. The patient and his physician decide what is adequate informed consent most of the time. When problems arise, however, the court decides. The court's job is greatly simplified if there is a document which spells out the consent. How far we in South Carolina should go in providing evidence of adequate informed consent for a possible future court action is not clear at present. Surgeons in Florida are presently being advised to obtain videotaped consents or at least audiotaped consents for most procedures. I do not feel this is necessary in my practice at present, and feel that in most cases it would be detrimental to the relationship of trust which I want to foster with my patients. In most cases, our hospitals prescribe a standard consent, but this does not relieve us individually of discussing procedures and treatment plans with patients. One good suggestion is to draw the patient a picture on the back of the consent form. This then becomes a part of the permanent record.

4. Speak English, not Medical Jargon: Most patients are afraid as they sit in our office and hear us talk to them. If we use medical terms they will not understand, they won't say they don't understand then, but years later on the witness stand they will relate that they did not understand. It is our duty to take all of our medical jargon and translate it into plain English. The average educa-

tional level of a patient, and a juror, in South Carolina is approximately the eighth grade. Our discussion should be in terms that the average eighth grader can understand. At the same time we should be very careful to avoid a condescending or "talking down" attitude.

5. Honesty is the Best Policy: If something bad happens, admit it! Tell the patient and the family the truth—exactly what happened and what you are going to do about it. Spend some time communicating with the family. Cry with the family or the patient if that is appropriate. Go to the funeral. Go to the home. Be involved just like a member of the family. Even if the patient has suffered damage as a result of something you have done, in 50% of the cases, you will not be sued if you are totally up front about what happened.

On the other hand, if you don't talk with the patient/family, if you ignore their anxiety about a bad outcome, if you try to sweep it under the rug, or try to fix the chart to show that you didn't do anything wrong, there is a high probability that you will be sued.

6. Shoppers: One of the significant items of the History of any new patient relates to the previous physicians. If you get the impression that this patient has left his prior physician under bad circumstances, be careful. Call and discuss the case with the prior physician. If this patient could not get along with your colleague, chances are that he will not be able to get along very well with you.

Another item of the History which you need to know and should not be afraid to ask about relates to the medicolegal history. You have every right to know if this patient has been a plaintiff in a lawsuit before. You should not ask "Have you ever sued a doctor before?" But rather ask whether this patient has been involved in litigation so that you might get a better idea of the total complex of the medical history. If the patient does have a history of litigation, and you don't want to become involved, you have every right to decline to accept that patient.

7. Records: All attorneys agree that it is extremely detrimental to your case if you don't have legible office notes. In today's environment, it is much more preferable to have typed office notes. With the availability of small portable pocket dictating machines, there is very little reason for

MALPRACTICE PROPHYLAXIS

handwritten office notes. One can generally dictate a better note more quickly than trying to write it by hand. I believe that the office note can usually be dictated in the presence of the patient. If the patient has any disagreement with anything that is said, he has an opportunity to say so. I also suspect that patients feel better knowing what is being said about them. A dictated note also provides an immediate report to send back to the referring physician or other involved physicians in appropriate cases.

Malpractice suits and "bad doctors" are not synonymous. The incompetent physician exists, but all major studies have found that these physicians represent only a minor element in the overall picture of medical malpractice. Dedicated, competent, well-trained South Carolina physicians, who have lost rapport with their patients or patients' families, represent the bulk of our local cases. Many of us can profit by using some of the suggestions we have mentioned to prophylax our own practice against the specter of a malpractice suit. □

AREAS OF FREQUENT LIABILITY PITFALLS

1. Communication
2. Hostile Patients
3. Informed Consent
4. Medical Jargon
5. Ignoring/Denying Mistakes
6. Doctor Shoppers
7. Recordkeeping

MALPRACTICE PROPHYLAXIS RESOURCES

1. Mr. Richard Jones, Malpractice Defense Attorney; Gainesville, Fla.; Speech given, May, 1988 at the SCMA annual meeting in Charleston, S. C. Tape available from SCMA.
2. *Malpractice: A Guide to Avoidance and Treatment*, by Kenneth Brooten and Stuart Chapman. 1987. Grume.
3. *Malpractice: A Guide to the Legal Rights of Doctors and Patients*, by Donald J. Flaster. 1983. Scribner.
4. *Malpractice: A Trial Lawyer's Advice for Physicians*, by Walter G. Alton, Jr. 1977. Little.
5. *Malpractice Depositions: Avoiding the Traps*, by Raymond M. Fish and Melvin E. Ehrhardt. 1987. Medical Economics Books.
6. "Professional Liability in the '80s." Chicago: American Medical Association Special Task Force on Professional Liability and Insurance, 1984.
7. "Response of the American Medical Association to the Association of Trial Lawyers of America Statements Regarding the Professional Liability Crisis." Chicago: American Medical Association, Special Task Force of Professional Liability and Insurance, August, 1985.

SO YOU ARE A DEFENDANT IN A MALPRACTICE ACTION

DONALD V. RICHARDSON, ESQUIRE*

Like rain, there seems to be a time in a physician's life when a medical malpractice action falls. This article is about what you may expect from your defense counsel in your defense.

As soon as you or your staff or family receive the suit papers (Summons and Complaint) instituting the action, you should note on the face of the Complaint the date and time they were received, and initial this notation. When the suit papers are sent to your insurance carrier, be sure that you also transmit everything you received. In a death case, a case involving a child, or a married couple, two separate suits are usually served at the same time. In a death case, you will not be able to tell the wrongful death action from the survival action unless it states on the face of the Complaint which action it is. If it does not so state, you can only determine the difference by the civil action number, which will be different on each Complaint. In the case of a child, there will be an action in the name of the parents and an action in the name of the child. In the case of the married couple, there will be an action in the name of the husband and an action in the name of the wife. Also, be sure that you were not served with Interrogatories or Requests for Production. It is a good practice to send everything you receive to your insurance company. Accordingly, if you receive anything other than the suit papers, you must also notify your insurance company of this fact. The additional documents should also be dated and initialed.

Upon the assignment of the defense attorney to represent your interests, a meeting should be established with him as soon as possible. At the meeting with the defense counsel, take all medical records you have in your possession concerning the patient. Be sure that your attorney has a complete copy of the original records, and that they are legible. If your attorney cannot read your

records, by all means have the records typed out in legible form for his use. This initial meeting should be for the purpose of introducing the medical records to your attorney, reviewing those records with your attorney, and ascertaining what course of action you are to follow in the defense of the litigation.

It is imperative that medical research be conducted as soon as possible. The defense attorney and the physician should collaborate as to how this medical research should be best accomplished. The research will determine not only what your best defense is, but will also assist you in preparing for the attack that will surely be based upon the medical literature. Your attorney should be given copies of any literature search you perform. The literature search can also be used in meeting with treating physicians to refresh their memory on current medical practices.

Your attorney will secure by Subpoena all other medical records from treating physicians and hospitals. These records are immediately available by a Rule 45(b) Subpoena, which is simply prepared by the attorney and served on the particular institution or physician. These records should be obtained very quickly, and you should be furnished with a copy for your immediate review.

After you have received all of the medical records of the attending physicians and hospitals, and have secured all of your office records, they should be reviewed. After you have reviewed these records, you and your defense attorney should determine the proper course of action. Hopefully, by the time you have reviewed the records you will also have the current literature and will be in a position to consider the services of an expert witness.

At some point in time, you will be advised that the Plaintiff's attorney desires to take your deposition. Hopefully, your attorney has already taken the depositions of the Plaintiffs and any other lay witnesses who relate to the history of the patient and to gather the facts and circumstances sur-

* Richardson, Plowden, Grier and Howser, 1600 Marion St., P.O. Drawer 7788, Columbia, SC 29202.

A DEFENDANT IN A MALPRACTICE ACTION

rounding the alleged malpractice. It is imperative that the Plaintiffs be deposed promptly in order that they cannot back-fill their history after your deposition had been taken. If you admit during your deposition that you would have done certain things if the patient had given a particular history, you can rest assured that this particular history will be provided by the Plaintiffs if they are deposed after you. Do not expect the truth as you perceive it to be to come from the patient. It would be startling if the patient admitted to the history as you have noted it in your records.

Once you are notified that you are to be deposed, you should meet with your attorney, who should explain to you the purpose of the deposition and the use of the deposition at trial by the opposing counsel. You should be fully and completely prepared for your deposition, just as if you were going to trial. You should understand the records completely, including everything from the nurse's notes to the laboratory data. You should never attempt to practice law, but should practice medicine at the time of your deposition. You should answer any questions fully and completely in a medical context. If you have an opinion concerning causation or your treatment, do not hesitate to give it. In short, when your deposition is taken, you should be the very best of friends with your attorney. If your attorney does not give you this service, you should demand it. In all probability, your case will be won or lost at the time your deposition is taken. It is rare that a physician can overcome at the time of trial his unpreparedness at his deposition.

Once your deposition is taken, you then serve as a consultant for your attorney. You should know what is going on in your litigation at all times. You should help your attorney digest any medical records that may be discovered, interpret any medical literature that may be obtained, and assist him in responding to new facts as revealed by the attending physicians. Hopefully, by the time you are deposed, your attorney has already started discussing the medical records of the treating physicians with you so that you may be fully informed of the significance of these records and the opinions contained therein.

When your attorney receives Interrogatories, you should assist your attorney in drafting responses to them. A review by you of the answers proposed by your attorney will be very helpful in maintaining a good medical perspective. Please

take the time to read any of the attorney's proposed Answers to Interrogatories and help him draft the correct medical response. At all times you should strive to be medically correct in any response that you give to the court.

You will not have a confrontation with opposing counsel again until the time of trial. Generally, there are only two times the physician will be directly confronted by opposing counsel in any adversarial proceedings. The first is when your deposition is taken by Plaintiff's counsel, and the second is when the case is tried in court.

If you learn that other attending physicians are to be deposed by the Plaintiff's attorney, be sure to discuss this with your attorney to be sure that he has already discussed the case with the attending physician and has ascertained what the attending physician is going to testify to in advance. Every now and then, an attending physician's opinion will not be medically correct. It is necessary to secure the medical literature to educate that physician so that he is correct in his medical diagnosis and the causation theories in this case.

You should always look at the damage aspect of the case insofar as it is related to charges against you. Do not hesitate to check the amount of the hospital bills, bills from attending physicians, and any loss of function or disabilities claimed by the patient. For example, if a hospital bill is submitted, how is that bill increased over the normal amount for the original disease process? A physician is not responsible for the normal consequences of the disease process. He is only responsible for that act of his which prolonged or increased the expenses of the patient. If the patient has lost her renal function, not through an act of malpractice, but through a disease process, that is material and should be exploited. Do not assume that all damages or disabilities or permanent impairments are a result of malpractice. The act of malpractice must directly or proximately cause the harm or the monetary loss to the patient. In essence, did the act of malpractice alleged against the physician cause the result, damage, or impairment of the patient? If it is attributable to the disease process, the physician is not responsible.

Defense is a team effort and as a key member of this team, you should be aware of all the defense efforts.

In summary, you should meet with your attorney as soon as the action is instituted and prior to your deposition to be sure that he understands

A DEFENDANT IN A MALPRACTICE ACTION

your medical position. You should assist your attorney in securing the medical records of any hospital or attending physician and suggest certain records that may be beneficial to the defense. If you do not know the answer, then secure the records. You do not assume, you do not guess, you must know the facts. Assist your attorney in the medical research and explain to him the results of that research. Your attorney can use the medical research with the other attending physicians to benefit your case and to fortify the opinions of those attending physicians. Make every effort to prevent an attending physician to testify in court and have no opinion which may benefit you in the defense of the case. Most attending physicians would give an opinion as to the standard of care and causation if they think that they are medically accurate in doing so. Accordingly, it is the function of your attorney, with your assistance, to be sure that the attending physician correctly knows the medical standards and the appropriate medical treatment. This will eliminate off-the-cuff opinions or prejudices, which could be very damaging indeed. You must always watch for biases that creep in among cross-specialties. A specialist in infectious disease will immediately think about infection and the appropriate treatment to combat those infectious processes. However, a cardiologist will immediately choose to

rule out that the same patient has any inherent heart disease. Each specialty carries its own bias. You must be vigilant that a bias does not become a standard for the non-specialist.

If the Plaintiff's expert witness is deposed, most defense counsels will offer you the opportunity to be present at the time that deposition is taken. Do not hesitate to afford yourself of this opportunity. It will give you a first hand look at your adversary, and you may be able to assist your attorney in cross-examining the witness. If you have to travel out-of-state to depose the Plaintiff's expert witness, usually the carrier will pay your expenses in making that trip. Your defense counsel will welcome your cooperation.

You will find that by working closely with your defense counsel, you will become an aggressor in the defense of the action. Once you have moved from a Defendant to an aggressor, you have picked the high ground and have taken the initiative away from the Plaintiff. You pick when the case is to be tried if possible and be ready. An aggressive defense is a very good offense and you should be successful.

A team consisting of you, your insurance company and your defense attorney are the essential elements of a good defense. Close and continuing support by all members of a defense team are necessary for a winnable case. □

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THE DEPOSITION—THE DOCTOR, THE LAWYER

WILLIAM F. FAIREY, M.D., LL.B.*

The deposition is the single most significant event which occurs in a malpractice suit. It is the first salvo fired by the plaintiff. The deposition sets the tenor for the entire case, it provides the framework upon which future decisions are made, e.g., the need for additional witnesses, the tactics of the case, and ultimately provides the basis for settlement versus trial. Although the deposition occurs early in the proceedings, it is often a "fait accompli," inasmuch as conclusions and statements are often irretrievable and may not be altered without damage to the credibility of the witness.

It is more important to be thoroughly prepared to give a deposition than to give testimony in an actual trial because the deposition is the "condition precedent" upon which the trial testimony is based; such testimony is substantially and at times exclusively dependent upon the deposition. The comprehensive preparation is vital whether we are the defendant or whether we are a fact or expert witness for the defendant. If we, as physicians, want to help resolve the malpractice crisis, we may not be in a position to cast a vote for tort reform, but we can, as a witness to the facts or as an "expert" witness, be maximally prepared to offer medical information in a meaningful, direct and succinct manner to support the defendant's position.

For example, in a recent malpractice death case, the defendants from a smaller South Carolina community sought a pre-deposition evaluation from specialists, to whom the defendants often refer their patients; however, two separate groups of South Carolina specialists, after only a cursory review, dismissed the facts as incontrovertible from the plaintiff's perspective and refused to become involved. One specialist spent more time calculating the damages on behalf of the plaintiff, based on his medical prognosis, than he did in evaluating the case. The defendants ultimately obtained an out-of-state specialist who studied the case carefully and testified as the

defendants' expert. The jury returned a verdict for the defendants after only one hour of deliberation! Undoubtedly, had the South Carolina specialists cared enough to give a more incisive evaluation of the case, they would have reached the same conclusion as the out-of-state specialist.

There seems to be a lingering "ivy tower" versus "LMD" snob mentality that still prevails in South Carolina. Whether or not there was some basis for this attitude in the past is unknown, but certainly it should not exist today. The smaller communities are filled with excellent "LMD's" who are bright, well-trained and who have earned the respect due them from their medical colleagues who may only incidentally practice in the larger cities. South Carolina physicians can and should be a close knit medical community, showing mutual respect and exchanging relevant medical information. As a part of this mutual exchange, constructive peer review at the local and state level can be more easily attained. Tough peer review is an essential ingredient of our medical/legal endeavors.

And if we are to be effective participants, we must know all the facts in the case, not just the ones that may apply to our narrow area of interest. We interpret our data as it relates to the other facts in this case, and consult with the experts in the field. As a bonus, this study usually extends our own medical knowledge, and it definitely helps to determine the direction and often the outcome of a case.

In my own experience, I have not always been so diligent. However, after several depositions as an "incidental" witness in which I was only casually prepared, I suffered some embarrassment, a sense of professional incompetence and most importantly, made no contribution to the defendant's cause. I learned as a matter of survival to be thoroughly prepared. I no longer underestimate the examining lawyer's ability to become thoroughly familiar with the medical issues and to develop direct insight into the character of the most complicated cases. The good attorneys ask the tough questions and relevant followup questions when the answers are imprecise or inaccur-

* P.O. Box 118, Pawleys Island, SC 29585.

THE DEPOSITION

rate. Depositions for the physicians can be just as grueling and threatening as oral examinations or cross-examinations in the actual trial of a case.

Prior to the deposition, the physician must know his case thoroughly and he must be able to recite times, dates, medications, and what his progress notes and the nurses' notes state, all in the context of the case. In a malpractice death case, a few days before trial, as I was trying to develop more information for my own testimony as a fact witness, and as I was discussing the case with the defendant physician, it became apparent that he was not at all familiar with his own case, and this was only a few days before actual trial! He was a busy active physician and his lawyer was similarly taxed for time; however, each was doing a disservice to their case and to the system, medically and legally, by their incomplete preparation.

The defense attorneys tell us that, as a defendant physician, we may have to spend as much as 25 percent of our time with our attorneys for the preparation of our cases, and for various hearings and the trial itself, exclusive of the blood, sweat and tears. Much of the time is spent in preparation for the deposition. The interview with our attorneys, and the deposition itself are not squeezed into the attorney's or our schedule, but are carefully selected at a time which best suits our temperament and after we have carefully studied our case. We schedule the deposition at the place in which we are most comfortable and the setting that is most advantageous to us. It is vital that the defendant physician attend all depositions so that he might correlate the medical information for his attorney, and to prompt him to ask the relevant questions contemporaneously with the opposing witnesses' statements. The mere presence of the defendant at the deposition of the medical expert for the plaintiff tends to neutralize and restrain this expert in his testimony. We are advised that the attention to these details can make the difference in winning or losing the lawsuit.

Recently a group of defense attorneys complained that their doctors are not properly prepared for depositions, and some of the physicians state that their lawyers do not properly prepare them. A defendant physician reports that his attorney prepared him for his deposition by meeting him at the local bar! After several drinks, the defendant attorney, with strained sophistication and apparent deep satisfaction, advised his client to "tell the truth." With that profound advice, the

interview was terminated, the physician client dismissed, and the attorney turned to the more serious business at hand. Certainly an extreme example, but it represents an attitude that must be avoided.

So, at times, there is a real communication gap between the lawyer and the doctor in preparing for the deposition. The ultimate direction and responsibility must be that of the lawyer; however, if we, as physicians, are not fully and properly prepared, we must advise our lawyers of this deficiency. A full discussion must ultimately take place between the defense attorney and each of the physicians testifying for the defendant. The ideal setting is that all physicians meet together with the attorneys so that each might better evaluate his deposition or testimony in the context of the entire case and more especially to educate the attorneys.

There is an inherent gap between law and medicine so that the lawyer believes he understands the language, but often does not fully appreciate the medical impact in the context of this particular patient. This very situation occurred in a suit in which the jury returned a verdict for the plaintiffs in the high six figures. In a post-trial interview requested by the physicians with the defense attorney, it was apparent that the attorney, even at this late date, did not fully comprehend the medical implications, which were readily available to him had there been more thorough communication between the attorney and the physician specialist who was providing background information.

We are encouraged to hold post-trial and post-deposition interviews for a constructive critique of the case. More especially post-deposition critiques should be had with a sensitive evaluation of the physician's attitude, verbal content and appearance. The physician should be open to this constructive criticism in order to be more effective and precise. It has even been recommended that the physician be videotaped as he is "cross-examined" by his attorney in a simulated setting, so that he might be better prepared for the reality of his deposition.

From my experience as a witness, I have come to the realization that as physicians, we have medical power, so let's learn to use it in depositions and in the courtroom. Let's not be defensive and intimidated by the system. As witnesses, because of our medical training, experience, and our hands-

THE DEPOSITION

on treatment of the patient in the given case, we have the ability to know more about the case, about the facts and their impact on the patient than anyone else in the court system. This especially includes the cross-examining attorney who should not be able to shake our testimony, once we have, with reasonable medical certainty, arrived at our own medical decisions. We need to be precise, definite in our statements and opinions, to identify the limitations of our testimony and to draw firm and confident conclusions. Although there may be other alternatives available to the physician in the case, if we believe he has taken the appropriate actions, then we state "in my opinion, in this case," this is my firm conviction and approval of the treatment rendered. There is a method to be learned and an attitude to be developed through which physicians can make a significant contribution.

As a profession, we are further challenged when there is an attempt to hold physicians liable for that nebulous, unpredictable element of medicine for which there is no final, scientific answer. It is these "bad outcome" cases especially that through preparation and knowledge, we, as a medical team, can inform the court of the unfairness and inappropriateness of this kind of legal action.

There is some paranoia in every profession, but what we as physicians are experiencing is not paranoia, because "they" really are out to get us, not because of who we are or what we do, but because we are uniquely vulnerable to the tort system due to the fact that medicine is practiced as an art, but perceived by the public/jury as a science. Under our court system we are challenged to give precise, definitive answers for which we are not trained nor is it our practice in medicine to do, and which we, as physicians, deem to be inappropriate. In spite of these obstacles, we are learning as witnesses to make the transition from the subjective medical mode to the more objective, legalistic attitude that is required, and that we now recognize as an opportunity for medicine to provide.

As physicians, we are developing an insight into the mechanics of malpractice suits and a better understanding of our role in the courtroom setting. Physicians' involvement is one of the keys to resolving the medical-legal dilemma occurring regularly in our court system. We are needed—let's step forward to be heard in the given case and to take part in our unique Risk Management Program! And it all begins with the deposition. □

Editorials

QUALITY ASSURANCE, QUALITY MANAGEMENT, RISK MANAGEMENT, AND OTHER BUZZ WORDS OF THE EIGHTIES HOW DO WE USE THEM?

In 1955, when I graduated from medical school, all that a new doctor had to do was pass the State Board examination and he could go to most communities and do whatever kind of medical or surgical procedures he felt qualified to do. A practice was then built on the word of mouth of his patients and the sweat of his brow. His peers seldom questioned or challenged his qualifications or ability, and the risk of being sued was very small.

Time has changed that scenario, and we now practice in a milieu that includes ongoing certification of hospitals, nursing homes and other institutions, based mostly on evaluation of the quality of care rendered. The doctor himself must prove he has been properly trained and there are boards certifying all specialties and sub-specialties. During the past 15 years, entry of third parties such as the federal and state governments, insurance companies, employers, citizens' groups and licensing boards into the medical care equation has clearly established the need, desirability, and necessity of developing systems that evaluate the quality of what the whole medical care delivery system does, and applying the knowledge gained to the improvement of patient care, the outcomes of care and the granting of privileges or license to deliver that care.

Efforts to evaluate the performance of the delivery system and the ability to deliver high quality care go back to the early years of this century when medical education was changed by the aftermath of the Flexner Report. Then doctors perceived the need to credential themselves according to their training and skills. Since the early seventies an urgency has been pushed by the effects of federal legislation, the growing concern for the value received for its dollars by third party payors, the increasing need to manage the legal risks, and the explosion of high tech medical pro-

cedures to find ways of identifying and evaluating our problems. This has led to the development of ways of managing these problems to the improvement of a system bulging at all its seams with new activities and technologies.

All these functions are now grouped together and termed "Quality Assurance"; and most medical institutions have a Quality Assurance Committee, council, etc. We have begun to amass a great quantity of data. Every medical institution and every doctor in the state will need to begin to evaluate procedures and outcomes, acquiring a data base which must be studied regularly for the identification of patterns which need to be addressed or modified, and thereby establish an ongoing program of improvement in patient care.

Credentialing for privileges in institutions is usually granted by proof of proper training and demonstration of ongoing retention of skills and knowledge in specific areas. The use of the quality assurance data base to evaluate skills and knowledge on a year to year basis will enable most institutions to assure its consumers and pay sources of continuing quality. This data base should also inform each individual doctor of where his educational needs lie and help him to direct his educational endeavors in the right direction.

I also envision an extension of this kind of continuing evaluation data base for use in licensing and board re-certification. We all bear the risk together, so it behooves us to continue to develop high grade, accurate, unbiased systems of quality evaluation in order to meet the challenge of the future.

R. L. SKINNER, JR., M.D.
305 E. Cheves St.
Florence, S. C. 29503

RISK MANAGEMENT

The cornerstone and the most important factor in preventing medical liability suits is the avoidance of risks which lead to these occurrences. We speak of this as risk management or risk prevention. There are, of course, some risks which cannot be prevented. There will be bad results from injury, surgery, and disease which are beyond the control of any physician. Some of these will be blamed on the treating physician, and jury or judges awards have been made in such cases when the events were totally unpreventable. However, there are things we can do even in these instances to avoid suits, by establishing good rapport with the patients and their families, showing concern and willingness and openness to discuss what has happened.

As we reach this point in our efforts to improve the liability situation, we need to review and re-emphasize some basic tenets which have been stated in various ways in the Medical Liability Bulletin.

Do we always take the time to discuss problems with our patients and their families? Do we explain—in terms they can understand—the diagnosis, the treatment and, yes the alternative methods of treatment in some instances? Do we answer the questions of our patients and their families clearly and fully? Do we speak with a kind voice and in a sympathetic and understanding manner? Are we available at times that may not always be convenient to us, but may provide an opportunity for families we could not arrange to see during office or hospital runs? Do we instruct our office staff to show proper courtesy and make every effort to see that our patients are treated kindly and with understanding in all relationships including the financial ones?

Are our relations with our colleagues friendly and cordial? Do we make off-the-cuff remarks or

unkind judgments? Are we brave enough to let a friend know when and if he or she has a problem and be willing to help? Are we strong enough to accept criticism ourselves and proper comments? And are we broad-minded enough to see both sides of all issues and involvements including professional liability problems?

Six tips were stated concisely in one issue of the bulletin and these are as follows:

1. Take a hard look at yourself and your practice.
2. Develop a rapport with your patients.
3. Communicate with your patients.
4. Provide thorough training and supervision for your support personnel.
5. Adopt common sense billing procedures.
6. Keep medical records that are complete, current, accurate and professional, unaltered and legible.

Risk management requires repeated repetition of these fundamentals. The South Carolina Medical Association/Joint Underwriting Association Risk Management Committee plans to do just that.

In our efforts to bring about meaningful changes in our professional liability situation, let us be sure that we all do our part in our personal and professional behavior to enhance the true respect for the humility and the integrity of our profession and continue to eliminate the negative factors and build on the positive ones.

EUTA M. COLVIN, M.D.
Department of Surgery
Spartanburg Regional Medical Center
101 E. Wood Street
Spartanburg, SC 29303

LETTER TO THE EDITOR

To the Editor:

For: The Physicians of South Carolina:

In the recent general election, the voters of South Carolina overwhelmingly voted "Yes" on Constitutional Amendment One. Through the creation of the state grand jury, this will provide a major tool in the battle against illegal drug trafficking.

This victory was attributable in part to the strong individual support of many of the members of the South Carolina Medical Association. I am grateful to the physicians of South Carolina for their interest and support of this Amendment.

Sincerely yours,
T. TRAVIS MEDLOCK
Attorney General
The State of South Carolina
Columbia, S.C. 29211

ON THE COVER: A PROPER BALANCE

*Go not for every grief to the physician,
Nor every quarrel to the lawyer,
Nor for every thirst to the pot.*

George Herbert 1593-1633

This month's cover picture was made in the J. Hampton Hoch Museum of Pharmacy, Medical University of South Carolina. It is an attempt to symbolize not only the dichotomy existing between the medical and legal professions but also the need for a proper balance of the goals, ideals, and philosophies of each if the public good is to be served.

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*When one's all right, he's prone to spite
The doctor's peaceful mission;
But when he's sick, it's loud and quick
He bawls for a physician.*

Eugene Field 1850-1895

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SOUTH CAROLINA MEDICAL ASSOCIATION AUXILIARY



AMA AUXILIARY LEADERSHIP CONFLUENCE I

Seven South Carolinians were in attendance at the AMA Leadership Confluence I held October 9-11, 1988, at the Drake Hotel, Chicago, Illinois: Sheila Davis (Sumter), AMAA By-laws Chairman; Mary James (Union), SCMAA President; and five county presidents-elect, Jeanie Stoddard (Greenville); Tina McLeod (Spartanburg); Joni Kroll (Lexington); Kristen Palles (Florence); and Rosemary Suggs (Marion).

The purpose of the Confluence is to provide leadership training, and to assist local auxiliaries in planning service projects that will meet the changing needs of the community. The program format consisted of consultations and training sessions led by experts in their fields. We felt very fortunate to be given the opportunity to participate in round table discussions on vital issues and concerns.

Topics covered during the sessions included membership, legislation, AIDS, adolescent health, teen suicide prevention, parliamentary procedure, the nursing shortage, motivation and leadership, effective programming, networking, and team efforts with our medical societies.

Sunday night's keynote speaker was the interesting and humorous James E. Davis, M.D., President of the AMA. After hearing from Dr. Davis and Mary Strauss, President of the AMA Auxiliary, we were in for a special treat. The 4077th T.R.A.S.H., representing a medical auxiliary from South Dakota, delighted us with their musical antics. After the entertainment, we went on a state exhibit walk which provided us with program and project ideas.

We came away from Leadership Confluence with a wealth of information, inspired to share with our peers what we had learned.

TINA MCLEOD, Pres. Elect
Spartanburg

JONI KROLL, Pres. Elect
Lexington

ROSEMARY SUGGS, Pres. Elect
Marion

INFORMATION FOR AUTHORS

We encourage original articles and letters to the editor of potential benefit and interest to the members of the South Carolina Medical Association.

CORRESPONDENCE: All manuscripts and correspondence should be addressed:

The Editor
JOURNAL OF THE SOUTH CAROLINA
MEDICAL ASSOCIATION
Post Office Box 11188
Columbia, S. C. 29211.

COPYRIGHT: All manuscripts should be accompanied by a transmittal letter to the editor, which should contain the following paragraph:

"This original work has not been submitted or published elsewhere, in entirety or in part. I (we) hereby transfer, assign, or otherwise convey all copyright ownership to the South Carolina Medical Association in the event that this work is published by the SCMA."

The above takes into account *The Copyright Revision Act of 1976*, effective January 1, 1978. We request authors to advise the editor of any prior or anticipated duplication of their work in other publications. Submission of material as a "companion article" to material submitted elsewhere is discouraged.

PRIORITY FOR PUBLICATION: *The Journal* was founded in 1905 especially as a place for practicing physicians to publish their original observations. This purpose continues to receive priority. Growth of institutions, especially of medical school faculties, during this century may be, at least in part, responsible for a decreased tendency for practicing physicians to attempt scholarly work. Concerned about this trend, *The Journal* encourages practicing physicians to report original observations, including series of cases or individual case reports.

The Journal also welcomes timely review articles by institution-based physicians. However, it is the philosophy of the Editorial Board that state medical journals do not represent an appropriate forum for research findings of a specialized nature. Such findings, it is felt, belong in national or regional specialty or subspecialty journals. Articles by institution-based physicians should serve

the information needs of a general physician readership.

Articles dealing with social, economic, and ethical issues are strongly encouraged. Historical or philosophical essays are also welcomed, although these are given lower priority compared to the above categories.

TYPES OF ARTICLES ESPECIALLY WELCOMED FOR CONSIDERATION

1. Original scientific observations (*including* case reports) made by practicing physicians.
2. Concise, timely review articles (see "Priority for Publication").
3. Articles pertaining to current social, economic, and/or ethical issues affecting the practice of medicine.
4. Information uniquely pertinent to the health care of South Carolinians.

REVIEWING AND RESPONSIBILITY TO READERSHIP: We will make every effort to review manuscripts promptly. All manuscripts will be reviewed by our editorial office, and when indicated the opinions of outside consultants will be solicited.

We welcome criticisms of journal content by members of the South Carolina Medical Association.

REPRINTS: These will be made available by the publisher at established rates, at the time of mailing of galley proofs.

LENGTH OF ARTICLES: We prefer concise articles of approximately 2,500 words (approximately eight typewritten pages, double-spaced), with no more than ten references.

We regret that space considerations limit our ability to publish longer articles, and request that authors adhere to the above guidelines. Similarly, tables and illustrations (see below), should be kept to a minimum, and be specific and pertinent.

Authors desiring to make additional data or additional references available to readers are encouraged to do so by adding footnotes to the effect that "additional references (or tables derived from this data base, etc.) are available from the author(s) upon request."

MANUSCRIPTS: These should be typewritten, double-spaced, and on one side of the paper. The original and one copy should be submitted. The title page should indicate the title, author(s), author's address, and academic appointments, if any. We request that the author's name not appear on subsequent pages, to permit "blind" review of the article, when desired. Authors should retain one copy for use in proofing. Written correspondence concerning proposed (potential) manuscripts is welcomed.

ILLUSTRATIONS: These should be submitted as glossy, black-and-white prints no larger than a standard page; smaller prints are desired. Ordinarily, publication of four small illustrations or tables, or the equivalent, will be paid for by *The Journal*. Any number beyond this must be paid for by the author except under unusual conditions. Illustrations should not be mounted, stapled, or clipped. On the back side of each illustration, the article title, figure number, and top of figure (but not the author) should be noted lightly in pencil. Legends for illustrations should be typed on a separate sheet of paper.

REFERENCES: These should be cited consecutively in the text, in superscript, e.g., "Bottsford, *et al.*³ . . ." We recommend no more than ten references, selected from more recent publications in accessible journals in most instances. Standard journal abbreviations should be used, with the style for journal articles being as follows:

³ Bottsford JE, Bearden RC, Bottsford JG: A ten year community hospital experience with abdominal aorta aneurysms. *J S C Med Assoc* 79: 57-62, 1983.

MATERIAL FOR COVER: The illustrations for the cover of *The Journal* are selected by a member of the Editorial Board, Thomas M. Leland, M.D., 206 Baker Medical Circle, Charleston, SC 29405. Dr. Leland welcomes illustrations and suggestions for the cover, including appropriate commentary. Such suggestions should be sent to him in writing at the above address.

ROE FOUNDATION AWARDS

Through a gift by the Roe Foundation, a Thomas A. Roe and Shirley W. Roe award of \$3,000 is given each year at the annual meeting since 1985. All manuscripts submitted by South Carolina physicians will be considered for the award. The award is made, on alternate years, to a practicing physician or to an institution-based physician, and is based on articles published in *The Journal* during the two previous years.

Articles written by practicing physicians are judged by members of the Editorial Board of *The Journal* on the basis of original scientific content and clarity of presentation. Practicing physicians are encouraged to report observations in *The Journal*, which was originally established for this purpose.

Articles written by institution-based physicians are judged by outside referees, to be selected by the Editorial Board. The current editorial policy of *The Journal* is that original scientific observations made by physicians such as medical school faculty members should, ordinarily, be submitted to peer-reviewed specialty journals rather than to the state medical journal. Therefore, the Thomas A. Roe and Shirley W. Roe award will be based on *review articles* by institution-based physicians. Referees will be instructed to base their selection on (1) the quality of the review article, and specifically its instructional value for a general physician readership, and (2) the significance of the author's contributions to his or her field. Institution-based physicians should submit a current curriculum vitae and reprints of articles representative of their work, as published in specialty publications.

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GAMETE INTRAFALLOPIAN TRANSFER (GIFT): THE SOUTH CAROLINA EXPERIENCE*

GARY HOLTZ, M.D.
GRANT W. PATTON, JR., M.D.

In vitro fertilization (IVF) has achieved widespread clinical usage in the management of infertility. However, clinical pregnancy rates are seldom as high as 20%.¹ In 1984, Asch, et al.² described an alternative technique allowing "in vivo" fertilization after the transfer of oocytes and prepared sperm to the fallopian tube. This technique, gamete intrafallopian transfer (GIFT), is now being widely utilized whenever possible due to its superior clinical pregnancy rate. This report describes the preliminary experience with this technique in South Carolina.

MATERIALS AND METHODS

Twenty-four patients with mild endometriosis, unexplained infertility, male factor infertility, cervical factor infertility, or male autoimmunity underwent 27 completed cycles of GIFT. All patients had previously undergone a thorough history and physical examination, semen analysis, post-coital test, hysterosalpingogram, sperm antibody screening, confirmation of normal luteal phase function, and laparoscopy. If the male had not previously fathered a pregnancy, a hamster egg penetration test was also performed. Most couples with unexplained infertility had also received a wide range of empiric treatment including usage of human menopausal gonadotrophins

(HMG). Women with endometriosis had previously undergone surgical and/or medical management. Patients with male factor infertility had been evaluated and treated as indicated by a urologist, and all couples suffering from this had undergone repeated cycles of intrauterine insemination. Patients with sperm antibodies had been treated unsuccessfully with corticosteroids.

Ovarian hyperstimulation was routinely obtained with the use of HMG; two ampules of Pergonal and two ampules of Metrodin on days three and four, and thereafter two ampules of Pergonal per day. Response was monitored with daily plasma estradiol determinations and ultrasound scans of the pelvis from day seven onward. Biologic response was also evaluated by assessing the cervical mucus and vaginal cytology. When the ovarian follicles were of the appropriate size, 10,000 units of human chorionic gonadotrophin (HCG) was given 34.5 hours before the ovum retrieval. The cycle was aborted if the estradiol level fell by more than 30% the day after HCG administration.

Husbands provided sperm samples obtained by masturbation one and one-half to two hours before ovum retrieval. In a single case, both frozen donor sperm and husband's specimen were utilized. Routine sperm preparation techniques were utilized and the concentration of the sperm suspension was then adjusted as required.

* From the Southeastern Fertility Center, 900 Bowman Road, Mt. Pleasant, SC 29464.

GAMETE INTRAFALLOPIAN TRANSFER

Oocyte aspiration was performed during a laparoscopic procedure by a technique similar to that previously used for IVF. Patients were prepped and draped prior to the administration of either a general or epidural anesthetic. Pneumoperitoneum was established and maintained with carbon dioxide. Three or four punctures were routinely utilized to facilitate ovum retrieval and tubal cannulation. After ovum retrieval, the pelvis was irrigated and aspirated to remove all accumulated blood and peritoneal fluid.

Aspirated follicular fluid and washes of each follicle were passed to the laboratory for identification of oocytes. The degree of maturity was established for each egg and only mature or intermediate ova were utilized for GIFT. A maximum of six eggs were transferred. The ova were placed in human tubal fluid media with 7.5% maternal serum in a tissue culture dish. If agreeable to the couple, a sperm suspension with 50,000-100,000 progressive sperm/ μ l was also placed within the dish containing these oocytes. Once all follicles had been aspirated, the catheter was loaded with 100,000-200,000 progressive sperm and the oocytes as previously described.²

Fallopian tube catheterization was performed by gently grasping the antimesenteric serosa of the fallopian tube with an atraumatic instrument. The ostium of the tube could then be visualized and manipulated. On occasion, several instruments were required for this purpose. The fallopian tube was cannulated with a small metal tube passed through the aspirating needle cannula (Figure 1). The GIFT catheter was then passed through this guide. Every effort was made to insert the catheter at least four cms. into the fallopian tube before injecting the gametes. Only tubes known to be patent and appearing normal were cannulated.

All patients were discharged the day of the procedure. Each received 25 mg. of progesterone intramuscularly daily, beginning on the day of gamete transfer. This was continued until eight weeks gestation if pregnant. A serum pregnancy test was obtained 12 days after the procedure, and if positive serial titers were evaluated. A biochemical pregnancy was defined by consistent elevation of the patient's HCG levels, but with subsequent failure of gestational sac development. A clinical pregnancy was confirmed by the presence of a gestational sac on ultrasonography.

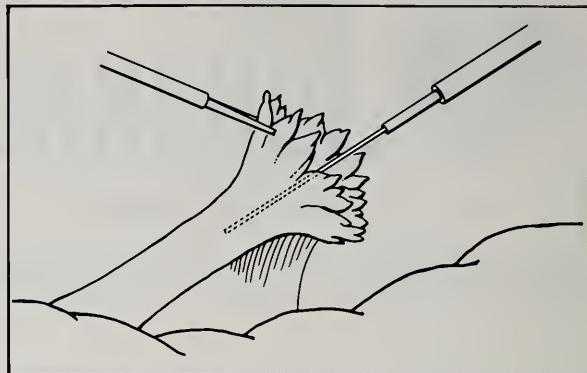


FIGURE 1. Insertion of the catheter into the distal fallopian tube.

RESULTS

Nine of 27 (33%) completed GIFT cycles resulted in a pregnancy, two were biochemical and the remaining seven (26%) were clinical. There were three twin gestations, all in patients having transfer of six oocytes and there were no ectopic pregnancies. Increasing the number of transferred oocytes was associated with progressively higher pregnancy rates (Table 1). When four or more mature or intermediate eggs were placed in the oviducts, nine of 21 patients (43%) achieved pregnancy. Pregnancy rates could not be defined for lesser numbers. Only six patients had fewer than four oocytes transferred during the GIFT procedure, and four had either male autoimmunity or male factor infertility, diagnoses associated with lower pregnancy rates.

TABLE I
Correlation of Oocyte Number to Pregnancy Rate

No. of Oocytes	No. of Cases	No. Pregnant	Percent
1-3	6	0	0
4-5	11	4	36
6	10	5	50

DISCUSSION

GIFT, gamete intrafallopian transfer, evolved from the techniques established for *in vitro* fertilization, and remarkably has doubled pregnancy rates. The fallopian tubes must be normal, yet patients with endometriosis, unexplained and cervical factor infertility have achieved excellent results as in the present study. This technique also

GAMETE INTRAFALLOPIAN TRANSFER

holds promise for couples with oligospermia and elevated sperm antibody levels.

Why GIFT has a higher success rate than IVF and why it produces pregnancies in these infertile couples is somewhat unclear. Several possible explanations exist for the latter.^{3,5} Transport of both sperm and oocytes to the tubal ampulla, the normal site of fertilization, may be deficient. Luteinized unruptured follicle syndrome with oocyte entrapment may occur in some patients and be unrecognized. However, several of the patients who achieved a pregnancy in this GIFT series had previously undergone serial ultrasounds which excluded such a diagnosis. The increased number of oocytes and sperm delivered to the site of fertilization may also reduce possible impairment of fertility secondary to defective gametes. Certainly the diagnosis of unexplained infertility includes all of these possibilities.

We attribute the excellent pregnancy rate reported in this series to the following: strict adherence to selection criteria; transfer in most cases of an optimal number (four to six) of oocytes;^{4,6} deposition of gametes at least four cms. within the fallopian tube when possible; and development of a GIFT program within an active and successful IVF program. The skilled personnel, unique equipment, and complex laboratory procedures utilized in IVF are also generally required for GIFT.

A new procedure combines ultrasound-directed oocyte retrieval, *in vitro* fertilization, and intra-tubal transfer of either pronuclear stage oocytes (PROST) or tubal embryo transfer.⁷ These combined techniques allow visualization of fertilization and have unique applications for patients suffering from severe oligospermia, asthenospermia, or antisperm antibodies. Their success rates

when fertilization occurs are comparable to those of the GIFT procedure.

Lastly, it may soon be possible to perform GIFT without conducting laparoscopy. Vaginal ultrasound directed oocyte retrievals are now the standard for IVF. Ultrasound-guided tubal cannulation with transfer of eggs and sperm has been performed experimentally.⁸ If this approach is successful, it would be possible to perform GIFT in a non-operative manner. □

ADDENDUM

Between November, 1987 and December, 1988, 46 GIFT cycles were completed. Nineteen pregnancies were achieved (41.3%). The clinical pregnancy rate was 34.8%.

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UPDATE ON HOSPITALIZED PESTICIDE POISONINGS IN SOUTH CAROLINA, 1983-1987*

STANLEY H. SCHUMAN, M.D., Dr. P.H.**

NORRIS H. WHITLOCK, M.S.

SAMUEL T. CALDWELL, M.A.

PAUL M. HORTON, Ph.D.

This report identifies details of current pesticide poisonings from hospital records. Typical or unusual cases provide case histories for educating pesticide users and health care professionals. Sixteen-year trends of hospitalized poisonings are analyzed for the period 1971-1987.^{1, 2}

METHODS

Seventy-six (76) general care hospitals in South Carolina were contacted by letter. All hospitals except one agreed to cooperate. Each medical records department was asked to perform a records search for 1983-1987 for the following ICD-9 diagnostic codes: 989.2 (chlorinated pesticides), 989.3 (cholinesterase inhibiting pesticides) and 989.4 (other pesticides). Sixty-one hospitals identified cases during the period of study. Epidemiologic data were abstracted from each record by a member of the Agromedicine Program staff or by the record librarian in five of the hospitals.

RESULTS AND DISCUSSION

There were 312 admissions for pesticide poisoning during 1983-1987 as listed by exposure category in Table 1. Ten cases (3%) are listed as "undetermined" because their medical records were not available for review.

Non-occupational Exposures

Non-occupational poisonings accounted for 50% of all cases and accidental poisonings in children (30%) led all exposure categories. The home environment was the place of poisoning for 87 of

the 94 pesticide poisonings in children while seven cases were associated with farming. Forty-five cases in the home resulted from children having access to pesticide containers, five of which were soft drink or milk bottles in which pesticides were stored. Thirty-four poisonings resulted from the access of children to recently treated areas of the home with 18 of the children ingesting rodent baits. Two children were poisoned when given a pesticide by parents who thought the chemical was a medication. One child was hospitalized after wearing tennis shoes that had been sprayed with an organophosphate to kill fire ants. The circumstances of five children poisoned in the home could not be determined because their medical records did not indicate the source of exposure.

Of the seven children exposed to agricultural pesticides, three had access to commercial containers. One child was hospitalized after playing in a field recently sprayed with an organophosphate insecticide. Three siblings were severely poisoned after their home was treated for cockroaches with an undiluted cotton insecticide (dicrotophos) taken from a farm and used by the parents.

The home was also the setting for 31 non-occupational poisonings in adults. Thirty cases involved exposure during application; 14 to gardens or yards and 16 to dwellings. Thirty-one other adults were poisoned with pesticides, but were not exposed to home or garden applications. These included eleven volunteer fire fighters who were admitted to a hospital after extinguishing a pesticide warehouse fire, five adults who were hospitalized after they sprayed themselves with an aerosol which they mistook for mosquito repellent, five pet owners who became ill after giving their dogs flea dips or shampoos, four adults who were poisoned after drinking pesticides which had been transferred to soft drink

* From the Agromedicine Program of Clemson University and the Medical University of South Carolina.

** Address correspondence to Dr. Schuman at the Agromedicine Program, Department of Family Medicine, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425.

PESTICIDE POISONINGS

TABLE 1
312 Hospitalized Pesticide Poisonings in South Carolina by Exposure Category, 1983-1987

Exposure Category	1983	1984	Hospitalizations			Total n / %
			1985	1986	1987	
Non-occupational:						
Child	19	20	23	17	15	94/30
Adult	25	9	8	11	9	62/20
Occupational:						
Ag. Related	8	11	9	11	11	50/16
Other	4	1	1	2	4	12/04
Intentional	13	21	11	23	16	84/27
Undetermined	1	4	1	3	1	10/03
Total	70	66	53	67	56	312/100

bottles and six who ingested pesticides while under the influence of alcohol.

Occupational Exposures

Occupational exposures were documented in 20% of the cases. Forty-nine admissions (16%) were related to agriculture with 41 farm workers hospitalized following exposure during application. Five agricultural workers were poisoned as a result of exposure to spills from mixing/loading operations. Three workers accidentally ingested pesticides, one involved a chemical which had been transferred to a soft drink bottle, and two patients drank water from a contaminated irrigation ditch.

Twelve of the occupational poisonings were not related to agriculture. Two of the cases worked for a pesticide company formulating synthetic pyrethroids, two were construction laborers exposed to pesticides and eight were either full or part-time structural pest control operators.

Intentional Exposures

Intentional poisonings accounted for 27% of all hospitalized cases, 80 of whom were suicidal (two died) and five unsuccessful homicide attempts. One death was due to the ingestion of diazinon, an organophosphate insecticide, and the other death was due to the ingestion of paraquat, a dipyridyl herbicide which causes proliferative changes in the lungs.

Chemical Class

Table 2 lists the categories of patient exposure

by chemical class of the intoxicant. Thirty-five pesticides were not identified in the medical records.

Insecticides accounted for 77% ($n=238$) of the poisonings. The organophosphate class of insecticides dominated with 56% of the total. Diazinon, malathion and chlorpyrifos were the leading organophosphates in both non-occupational and intentional categories ($n=68$). Parathion and mevinphos led the agricultural poisonings with a total of 15 cases.

Carbamate insecticides accounted for 7% ($n=21$) of the cases with nine occurring in the agricultural related category. Typical of this chemical class are aldicarb, carbaryl, carbofuran and methomyl.

Organochlorine insecticides also accounted for 7% of the total, however 11 cases were attributed to aldrin and all of these were fire fighters exposed to a single warehouse fire.

The synthetic pyrethroids and other insecticide chemical classes respectively accounted for five cases and two percent of the total.

Twenty-one cases (7%) of rodenticide poisoning were found in the child and intentional categories. Anticoagulants such as warfarin and coumadin accounted for the 21 cases.

Herbicides hospitalized only seven patients. Two were due to exposure in agriculture and two were non-occupational adults. There were three suicide attempts, one of which was fatal with paraquat.

PESTICIDE POISONINGS

TABLE 2
Pesticide Exposure Categories Identified by Chemical Class¹

Chemical Class	Exposure Category					Total n / %
	Non-Occupational Child	Non-Occupational Adult	Occupational Agric.	Occupational Other	Intentional	
Insecticides²:						
OP	57	25	38	6	48	174/56
CB	2	3	9	2	5	21/ 7
OC	3	14	0	3	2	22/ 7
SP	4	6	0	0	5	15/ 5
OT	2	0	1	0	3	6/ 2
Rodenticides	13	0	0	0	9	22/ 7
Herbicides	0	2	2	0	3	7/ 2
Not Specified	13	12	0	1	9	35/11
Total	94	62	50	12	84	302/97

1 n = 302, 10 of 312 patient records were not available for review

2 OP = organophosphates, CB = carbamates, OC = organochlorines, SP = synthetic pyrethroids, OT = other insecticide chemical classes

County of Occurrence

Florence and four adjoining counties (Horry, Darlington, Dillon and Marion) in the Pee Dee accounted for 20% of the state's pesticide poisoning hospitalizations. Eight counties (Abbeville, Barnwell, Calhoun, Fairfield, McCormick, Newberry, Saluda and Union) had no hospitalizations for pesticide poisoning during the period of study. Lexington County led all other counties with a total of 40 cases. Lexington County had the most adult non-occupational cases (n=13) and tied in number of cases with other counties in the following exposure categories: Sumter County / home application (n=4), Richland County / intentional (n=9) and Orangeburg County / child (n=7). Horry County led in the occupational category for agricultural related cases with a total of six.

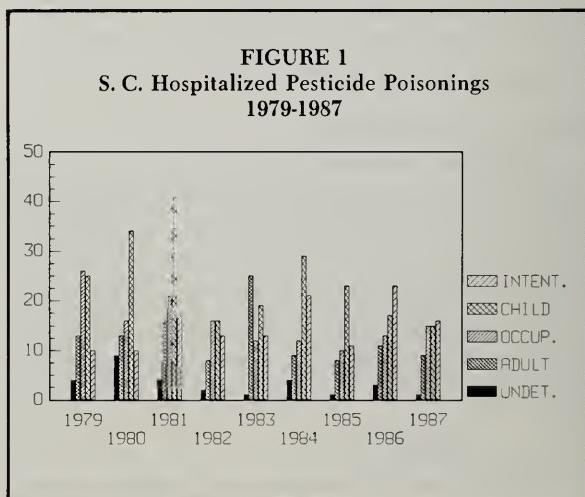
Patient Profile

The typical patient was a white male, except in the child category where non-whites were slightly more frequent. The average age of children hospitalized was three years, while the average of the other exposure categories ranged from 32 to 47 years. Days hospitalized ranged from two for child poisonings to five for intentional cases, reflecting psychiatric evaluation and longer hospital stay. Only 15% of all hospitalizations had specific

laboratory tests for pesticide poisoning (RBC or plasma cholinesterase determinations or gas chromatographic pesticide residue analyses). Death was rare, accounting for only 0.6% of all cases.

DISCUSSION

Cases of pesticide poisoning admitted to South Carolina hospitals have decreased by 20% from an average of 78.5 per year for the period of 1979-1982 to 62.4 for the period of 1983-1987. Trends over the past nine years are detailed in Figure 1. These are small numbers. For example,



PESTICIDE POISONINGS

TABLE 3
Sixteen Year Surveillance of
Pesticide Poisonings in South Carolina, 1971-87*

<i>Parameters</i>	<i>Study 1¹</i>	<i>Study 2²</i>	<i>Study 3</i>
Time Period	1971-73	1979-82	1983-87
Years (n)	3	4	5
Hospitals (n)	76	74	75
Cases (n)	117	314	312
Average Cases/Year	39.0	78.5	62.4
Deaths (n)	0	7	2
Case Fatality (%)	0	2.2	<1
% Occupational	37	25	20
% Non-Occupational (% Children)	42 (31)	53 (16)	50 (30)
% Intentional	18	16	27

* ICD Codes: 989.2, 989.3, 989.4 (see text)

^{1,2}: See References.

child poisonings vary considerably from year to year (highest in 1981 and lowest in 1982 and 1987). The percent of non-occupational pesticide poisonings has remained about the same while the percent of intentional poisonings increased from 16% to 27% and occupational cases decreased from 25% to 20% (Table 3). The continued downward shift in occupational poisonings suggests the value of pesticide safety training and pesticide use certification programs in agriculture and other pesticide use occupations. The need for educational programs aimed at the homeowner, gardener and others is also clear. Approximately thirty child and adult non-occupational hospitalizations could be eliminated each year if the homeowner followed pesticide label directions for usage and safety. Others in the community require special pesticide training; for example, 11 volunteer fire fighters were hospitalized as a result of a warehouse fire.

There are several hypotheses for the overall reduction in pesticide poisoning hospitalizations. The benefit of applicator training programs cannot be overstated. The classification of the more toxic pesticides into a restricted use category allows only certified users to purchase and use them, reducing the exposure of amateurs. Psychiatrists advise that depressed or suicidal patients be restricted from access to pesticides.

The use of the synthetic pyrethroid insecticides

is on the increase. While generally less toxic to man than either the organophosphates and carbamates, physicians should be aware of the synergistic action of synthetic pyrethroids with neurotoxicity of organophosphates. This has been documented in animal studies³ and is suspected in one recent case⁴ investigated by the authors.

Although hospitalized cases of pesticide poisoning are declining, one must remember that less severe cases are not counted in this study. Pesticide cases involving allergy, dermatoses or outpatient treatment are not enumerated. The first published estimate¹ of the outpatient/inpatient ratio for pesticide poisonings in South Carolina was 15/1. An unpublished study in 1979 found that the ratio had declined and that for each hospitalization for pesticide poisoning, there were 10 cases treated on an outpatient basis.⁵

Acute pesticide poisoning is a highly preventable cause of hospitalization among children and adults. The long term consequences of acute organophosphate poisoning are speculated upon in a recently published case/control study.⁶

SUMMARY

Three hundred twelve hospitalizations for pesticide poisoning occurred in South Carolina during 1983-1987. This represents a twenty percent decline from an average of 78.5 cases hospi-

PESTICIDE POISONINGS

talized per year (1979-1982) to 62.4 cases hospitalized per year currently. Non-occupational poisonings accounted for one-half of the hospitalizations while 20% were related to occupation. Intentional poisonings represented 27% of the total. Two deaths as a result of suicide occurred during the four year period giving a case fatality of <1.0%. This five year update reinforces the need for continued education and prevention efforts. □

ACKNOWLEDGMENTS

The authors wish to thank the cooperating hospitals for their assistance and sophomore medical students Neville Bennett, Craig Merrill and Rachelle Paul who performed most of the field work for this study.

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SCMA NEWSLETTER

FEBRUARY 1989

HIGHLIGHTS OF JANUARY BOARD OF TRUSTEES MEETING

The Board of Trustees appointed John W. Simmons, MD, and William J. Goudelock, MD, as SCMA representatives to the Board of Directors of Medical Review of North Carolina.

Dr. Rowland reported that SCMA will be introducing a Medical Review Bill in the SC General Assembly. The legislation will require any physician doing review in South Carolina to be licensed to practice medicine in this state.

Board members discussed Free Choice Press Conferences held by the SC Chiropractors' Association to call for mandated chiropractic benefits. The SCMA distributed position papers to all reporters on this subject.

The SCMA Committee on Aging will look into current issues and commercials on home health care products.

The Leonard Douglas Memorial Lecture speaker was announced. Speaking to the SCMA House of Delegates on Thursday, April 27, will be Nancy Dickey, MD, former chairman and current member of the AMA Council on Ethical and Judicial Affairs.

It was announced that the PCF Board has a 24 million dollar reserve and will institute a premium reduction in March 1989. For physicians who have been members of the JUA for four years, the rate will be reduced from 40 percent to 30 percent of the JUA premium. In addition, the PCF has approved a 32 percent decrease for state-employed physicians due to the million dollar cap enacted in the Tort Claims Act of 1988. The JUA has reduced the rates to Free Clinics as a result of the Charitable Immunity Act of 1988.

MEDICARE UPDATE

ICD-9-CM Diagnostic Codes

EFFECTIVE APRIL 1, PHYSICIANS WILL BE REQUIRED TO SUPPLY AN ICD-9-CM DIAGNOSTIC CODE FOR EACH LINE ITEM BILLED ON MEDICARE CLAIMS. EFFECTIVE JUNE 1, ASSIGNED CLAIMS WILL BE DENIED IF THEY DO NOT CONTAIN THESE CODES. IN ADDITION, PHYSICIANS WILL BE SUBJECT TO FINES AND SANCTIONS IF THESE ARE NOT PROVIDED TO PATIENTS FOR UNASSIGNED CLAIMS. A Medicare Advisory will be issued in the near future which will provide details on this new requirement.

ICD-9-CM coding books can be purchased from the Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325, (202) 783-3238.

	<u>1988 Price</u>	<u>Stock Number</u>
3 volume paperback	\$29.00	017-022-00715-1
3 volume hardback	\$40.00	017-022-00714-2
Official Authorized Addendum	\$ 3.75	017-060-00241-7
HIV Infection Codes	\$ 1.00	017-022-01045-3

January 1989 Medicare Advisory

This Medicare Advisory contains important information which should be reviewed by you and your billing staff. Some highlights include clarification that ambulatory blood pressure monitoring is not a covered Medicare service; instructions that all claims for digital (data compression) and analog (tape) holter monitors must be filed under procedure codes Q0019-Q0026 with either a QD or QT modifier; new radiation therapy and anatomical laboratory billing instructions; and further clarification on the prohibition against marking up charges from the outside supplier for purchased diagnostic tests.

Secondary Payor

The AMA has requested that Medicare pay physicians directly on all assigned claims as a practical way to avert non-payment problems that have arisen from secondary requirements.

The AMA has requested that physicians relate the nature and extent of any problems they have experienced with Medicare Secondary Payor requirements in order to assist the AMA in documenting the need for this request. Please send this information to Barbara Whittaker, SCMA, who will forward it to the AMA.

MEDICAID UPDATE

Pediatric CPT-4 Codes

SC State Health & Human Services Finance Commission has furnished SC pediatricians with a list of CPT-4 codes and Medicaid supplemental codes with their respective definitions, reimbursement rates and notes that may help in determining the appropriate code to use when billing Medicaid. This should assist pediatricians and their office staffs who provide medical care to Medicaid eligible newborns, children and adolescents with coding and filing for services rendered.

If you did not receive the memorandum containing this information or if you have questions, you may call (803) 253-6134 or write to: HHSFC, Department of Physician Services, PO Box 8206, Columbia, SC 29202-8206. A copy of the memorandum and list of codes are also available through the SCMA office. Call 798-6207 or 1-800-327-1021 and ask for Melanie McLendon or Kim Fox.

Healthy Mothers - Healthy Futures Program

Effective January 1, 1989, HHSFC implemented the Healthy Mothers - Healthy Futures Program which includes increased Medicaid reimbursement for maternal care that incorporates health education, referral to community support programs and follow up for missed appointments into a comprehensive prenatal plan of care. If the physician chooses to participate by agreeing to provide health education referrals to WIC, and follow-up telephone calls to prenatal Medicaid clients who missed appointments, he will be reimbursed at an enhanced rate for these additional services.

The appropriate procedure codes which include the enhanced services are listed below, along with codes for services which do not include the educational services and referrals. The codes which are marked with an asterisk must be used if a physician does not wish to participate.

<u>Service</u>	<u>Procedure Code</u>	<u>Medicaid Rate</u>
Initial Maternal Care (OB exam) with additional services	S0110	\$100.00
Initial Maternal Care (OB exam) without additional services	S1500*	\$ 50.00
Antepartum Care with additional services	S0112	\$ 25.00
Antepartum Care without additional services	59420*	\$ 18.00
Postpartum Care with additional services	S0114	\$ 25.00
Postpartum Care without additional services	59430*	\$ 18.00
All delivery services are reimbursable at the new rate, effective January 1, 1989.		
Vaginal Delivery	59410	\$600.00
Cesarean Section	59500, 59520 or 59540	\$700.00

A thorough explanation of the program is being mailed to all physicians. If you have questions in the meantime, please call Darlynn Thomas or Kathi Peebles at 253-6140 or 6141, or Mr. Bob McRae at 253-4063.

Claim Requirement Update

The SC Medicaid program issues a unique six-digit ID number to all physicians enrolled in the program. If your office is submitting claims to the Medicaid office, you must put your individual six-digit ID number on the claim form in field 31. If you are billing under a group number, you should put this number in field 31 and your individual ID number in field 24 C (next to the procedure code field).

HHSFC will help your office identify your six-digit number and will continue to provide help to your staff with any billing problems they may have. Please call 253-6134 for assistance. All eligible Medicaid recipients are given a unique 10-digit ID number. This number is printed on their Medicaid card. Please remember to check your patient's card every month to ensure eligibility.

PRO UPDATE: PRIOR APPROVAL INFORMATION

Effective for surgeries scheduled March 1, 1989 and thereafter, the following prior approval procedures will apply:

Medicaid: ALL ELECTIVE procedures, whether inpatient or outpatient or in ambulatory surgery setting, require preprocedure review for the following: lens extraction, nasal septal reconstruction, coronary bypass and hysterectomy (written request required). Direct written request for hysterectomies to Internal Review, Carolina Medical Review, PO Box 37309, Raleigh, NC 27627. Hysterectomy request forms must be received 15 days prior to planned date of surgery and DSS form 1729 (Acknowledgment of Receipt of Hysterectomy Information) must be attached. In addition, all inpatient admissions for procedures on the minor surgical list in the Medicaid Manual, as well as cardiac catheterization, require prior authorization from Carolina Medical Review. URGENT AND EMERGENT admissions will be reviewed retrospectively.

Medicare: ALL ELECTIVE procedures, whether inpatient, outpatient or in ambulatory surgery setting, require prior approval for the following: permanent cardiac pacemaker implantation and replacement, cataract extraction (lens procedures), total cholecystectomy, inguinal hernia, major joint replacement, transluminal coronary angioplasty, transurethral prostatectomy, and hysterectomy (abdominal and vaginal). ALL NON-ELECTIVE (EMERGENT) cases will be reviewed on a postprocedure, prepayment basis. APPROPRIATE AND TIMELY MEDICAL CARE MUST NOT BE DELAYED TO OBTAIN PRIOR APPROVAL.

Telephone requests for Medicaid and Medicare prepapprovals can be made, beginning February 13, Monday through Friday, 8:00 am-5:00 pm to 1-800-331-4690.

HEALTHCARE ISSUES FACING CONGRESS

The 101st Congress will address the following healthcare issues:

- regulation of financial relationships between physicians and enterprises to which they refer patients. The proposed legislation goes beyond the Medicare anti-kickback regulations still pending in the Department of Health and Human Services.

- health insurance for the uninsured which would require employers to provide a minimum level of health insurance to all workers and their dependents. The president intends to offer a Medicaid buy-in program for the uninsured working poor and increase Medicaid spending for pregnant women and children.

- long term care coverage for the elderly. At a cost of \$20 billion, this legislation proposes changes in coverage for nursing home and home care for Medicare beneficiaries.

Medicare reform will be a dominant issue because of the pressure to control healthcare costs. Congress is expected to hear testimony from several groups on Harvard's Resource-Based Relative Value Study.

The present budget proposal for FY90 contains a \$5 billion cut in the Medicare program and an additional \$1 billion cut in the Medicaid program. The proposed Medicare budget contains a fee freeze for all non-primary care services in 1990, a 10 percent drop in radiology and anesthesiology fee schedules in 1990, a \$90 million reduction in surgical procedures, and a fee reduction and fee freeze for clinical lab services in 1990.

Morehouse Medical School President, Louis Sullivan, MD, is proposed to be the new secretary of the Department of Health and Human Services. Dr. Sullivan's priorities are drug abuse, preventive medicine, minority health, biomedical research and healthcare costs. He opposes abortion except in cases of rape or incest or when a woman's life is in danger. Dr. Sullivan has been active in AMA and Medical Association of Georgia affairs for many years. A hematologist, he received his MD degree from the Boston University School of Medicine in 1958.

LAWYER-PHYSICIAN RELATIONSHIP COMMITTEE

The Lawyer-Physician Relationship Committee of the SC Bar Association on January 26 sponsored a panel discussion regarding physician testimony in personal injury court cases. The panel, consisting of three physicians and three attorneys, supported the use of videotaped testimony by physicians for use instead of actual in-court appearances. Plans are being developed for a joint CME-CLE presentation during the SCMA Annual Meeting in Charleston.

MEDICAL LIABILITY PURCHASING GROUP, INC.

You should be alerted to the fact that the Medical Liability

Purchasing Group, Inc., is contacting SC physicians to solicit them for medical liability coverage. According to the SC Department of Insurance, purchases in SC would be effected in The Casualty Assurance Risk Insurance Brokerage Company which is not recognized as an eligible surplus lines insurer. The Medical Liability Purchasing Group, Inc., has been instructed to discontinue the solicitation to residents of SC until the company is duly qualified and the purchasing group is properly registered.

CHAMPUS ANNOUNCES NEW CLAIMS MAILING ADDRESSES

Military families and SC healthcare providers should mail CHAMPUS claims to a new address effective February 1, 1989. On February 1, Blue Cross and Blue Shield of SC took over claims processing for South Carolina. The mailing address for all CHAMPUS and CHAMPVA claims is CHAMPUS/CHAMPVA, Blue Cross and Blue Shield of South Carolina, PO Box 100502, Florence, SC 29501-0502. The toll-free telephone number is 1-800-476-8500.

CONFERENCES TO BE HELD

The 1989 Annual Spring Meeting of the South Carolina Association of Medical Managers will be held March 30 - April 1 at the Ocean Creek Resort, Myrtle Beach, SC. The meeting topic is "Your Role in Managing a Medical Practice." For further information, please contact Mr. Robert Hendrickson in Greenville at 242-4122 or Mrs. Betty Hodge in Charleston at 792-4762.

The Emory University AIDS Training Network will be holding AIDS-related conferences as follows:

"Women and AIDS" - May 19 in Myrtle Beach. Registration is \$10.00.

"AIDS in Your Practice - Case Management in HIV Disease for the Primary Care Physician" - March 18 on Kiawah Island and May 13 in Asheville. Registration is \$100.00.

For additional information, please contact the Emory AIDS Network, 735 Gatewood Rd., NE, Atlanta, GA 30322. Telephone: (404) 727-2929.

CAPSULES

Charles R. Duncan, Jr., MD, Greenville, was presented an honorary membership in the South Carolina Hospital Association, "for his leadership in the healthcare field and the many contributions he has made to the betterment of patient care."

Harold E. Jervey, Jr., MD, Columbia, has been appointed as an advisor to the School of Medicine and personal advisor to the Rector of Universidad Central del Este in San Pedro de Macoris, Dominican Republic.

CHRONIC HEPATITIS AND INDOLENT CIRRHOSIS DUE TO METHYLDOPA: THE BOTTOM OF THE ICEBERG?*

WILLIAM M. LEE, M.D.**

WILLIAM T. DENTON, M.D.

Methyldopa has been one of the most commonly prescribed antihypertensive drugs in the United States for many years. Asymptomatic elevations of transaminases in patients receiving methyldopa have been recognized since its clinical trials in the 1960's, and were noted in as many as six percent¹ of patients taking methyldopa, but were considered to be of little consequence in the absence of symptoms. With further clinical experience, the agent was noted to cause both an acute illness indistinguishable from viral hepatitis, and a chronic hepatitis resembling autoimmune chronic active hepatitis.^{2, 3} In some cases, rechallenge with the drug resulted in severe^{4, 5} and even fatal reactions.⁶ The abrupt onset of these latter forms of liver injury and their relative severity has suggested that an idiosyncratic immune-mediated reaction was involved.⁷ Extensive studies on the pathogenesis of this condition are lacking, and even less data are available concerning those patients with mild and asymptomatic AST elevations. If a more occult form of drug-induced injury were to lead to cirrhosis in certain individuals it would occur only after several years of treatment and such cases would be likely to appear only after the drug has been in clinical use for a relatively long period of time. This has been our recent experience with confirmed and suspected cases of methyldopa-induced hepatotoxicity. The present study was prompted by a patient presenting with ascites and variceal hemorrhage who had received methyldopa for five years. Our review of other cases of suspected methyldopa toxicity over a three-year period led

to the identification of five additional patients with evidence of methyldopa-induced liver disease, most of whom suffered from indolent, asymptomatic liver injury leading to cirrhosis.

METHODS

All cases of suspected drug-induced liver injury seen by the Gastroenterology Service at the Medical University Hospital, Charleston, South Carolina, over a two and one-half year period were reviewed. Of 15 cases in which drug-related disease was likely, six were identified in which methyldopa was the presumed implicated agent.

Cases accepted for consideration were divided into three categories defined as follows:

1. *Definite*: A strong temporal relationship of the illness to ingestion of methyldopa was present, other suspected causes of hepatic injury were absent, and a positive rechallenge with the medication had occurred.
2. *Probable*: A strong temporal relationship with methyldopa existed, rapid fall of transaminase levels occurred after discontinuation of the drug, and no other suspected causes of hepatic injury were known. No rechallenge was performed.
3. *Possible*: A temporal relationship with methyldopa was established but a less dramatic decrease in enzyme levels occurred after discontinuation of methyldopa, no other obvious causes of hepatotoxicity were apparent, and no rechallenge was performed.

All patients were tested for hepatitis B viral markers including HBsAg, anti-HBs and anti-HBc and were found to be normal. Mitochondrial antibody, alpha-1-antitrypsin, ferritin and ceruloplasmin levels were also obtained, and were found to be normal or negative in all instances. Testing for the presence of antibodies to smooth muscle (ASMA) in serum was also performed.

* From the Gastroenterology Division, Department of Medicine, Medical University of South Carolina, Charleston. This work was supported in part by State of South Carolina Biomedical Research Grants GR44 and GR55 and by The Houghton Foundation, Corning, NY.

** Address correspondence to Dr. Lee at the Gastroenterology Division, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425.

METHYLDOPA HEPATITIS

TABLE 1. Clinical and Laboratory Data for Six Patients with Presumed Methyldopa Hepatotoxicity

Pt. No.	Duration of Rx	Age	Sex	Bilirubin mg/dl	AST IU/L	Alk Phos IU/L	ASMA Titer	Ascites
Definite								
1	4 mon	53	F	11.0	1700	247	1/160	—
Probable								
2	3 yrs	69	F	13.0	500	325	1/160	—
3	1 yrs	53	F	1.0	545	430	1/40	—
Possible								
4	5 yrs	50	M	3.1	89	121	1/20	+
5	9 yrs	60	F	1.1	39	248	1/80	+
6	4 yrs	40	M	0.3	48	280	1/80	+

CASE SUMMARIES

Data on the six patients suspected of having disease secondary to methyldopa are summarized in Table 1. Except for patient No. 1, all patients had been taking methyldopa for one year or longer. All were seropositive for antibodies to smooth muscle. Five of six had histologic evidence of cirrhosis.

Patient No. 1 was classified as a "definite" example of methyldopa-induced liver injury. She was a 53-year-old white housewife who had taken methyldopa in combination with hydrochlorothiazide for four months when she developed painless jaundice and constitutional symptoms. AST level was initially 1700 IU/L falling to 200 IU/L (normal <25) over five days following cessation of methyldopa. Because the diagnosis was uncertain, she was referred for further evaluation. Over the intervening two-week period her jaundice had resolved. An ERCP was performed and was normal, and a liver biopsy demonstrated resolving chronic active hepatitis (CAH) without fibrosis. She was discharged with the diagnosis of probable methyldopa-induced hepatitis. Upon return to her home, she had a rapid relapse of symptoms with increased transaminase levels (AST 750) five days after inadvertent resumption of the methyldopa-hydrochlorothiazide combination. Once this was recognized, the drug was discontinued and her symptoms and laboratory abnormalities resolved completely.

The "probable" group includes two patients who were not rechallenged but had courses very suggestive of methyldopa injury with rapid im-

provement in AST values on discontinuation of methyldopa. *Patient No. 2* was a 69-year-old woman who was without complaints but was noted to be icteric on a routine visit to the Hypertension Clinic. No predisposing factors were elicited other than the use of methyldopa for three years. Initial serum bilirubin was 13 mg/dl (normal <1) and her AST was 500 IU/L. A percutaneous cholangiogram showed no obstruction and a liver biopsy revealed CAH with established cirrhosis (Figure 1a). Her AST and bilirubin levels declined rapidly upon withdrawal of methyldopa. One year after initiation of methyldopa therapy, *patient No. 3*, a 53-year-old white woman, was asymptomatic, but was noted to have markedly elevated transaminases (AST 545) on a routine screening laboratory examination. Although she had received one unit of packed red blood cells nine months prior to admission, the rapid decline in serum AST levels upon discontinuation of methyldopa was more suggestive of methyldopa hepatotoxicity. Liver biopsy disclosed CAH with fibrosis and early cirrhotic features. This patient has remained symptom-free with normal AST levels during the subsequent two years.

The three "possible" cases were initially seen for management of ascites after prolonged methyldopa therapy and each had a negative evaluation for other causes of liver disease. *Patient No. 4*, a 50-year-old man, developed ascites after more than five years on methyldopa. He denied alcohol intake. Initial bilirubin was 3.1 gm/dl, AST 89 IU/L, and alkaline phosphatase 121 IU/L (normal <110). Gamma globulin level was increased

METHYLDOPA HEPATITIS

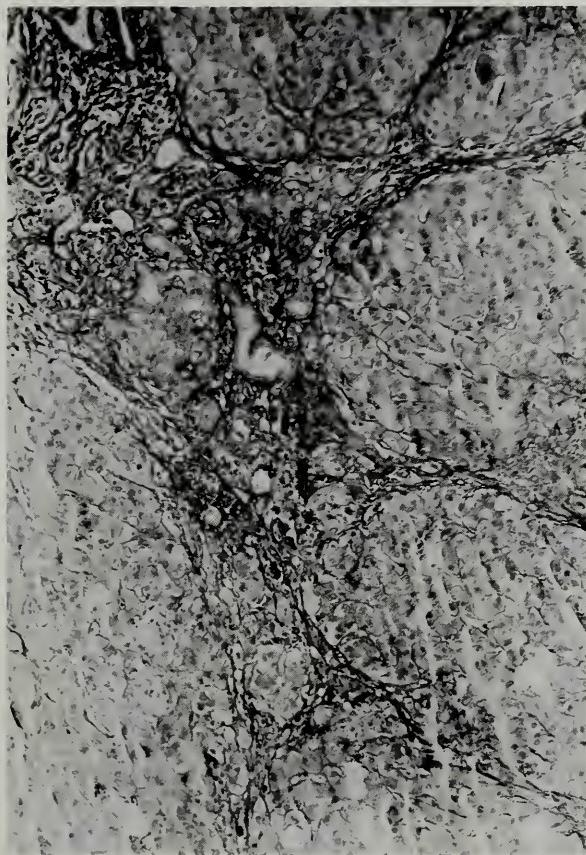


FIGURE 1a. Liver biopsy on patient #2 showing portal tract expansion, moderate infiltration with mononuclear cells and piece-meal necrosis. A cirrhotic nodule is present in right half of figure. (Masson's trichrome, 110x)

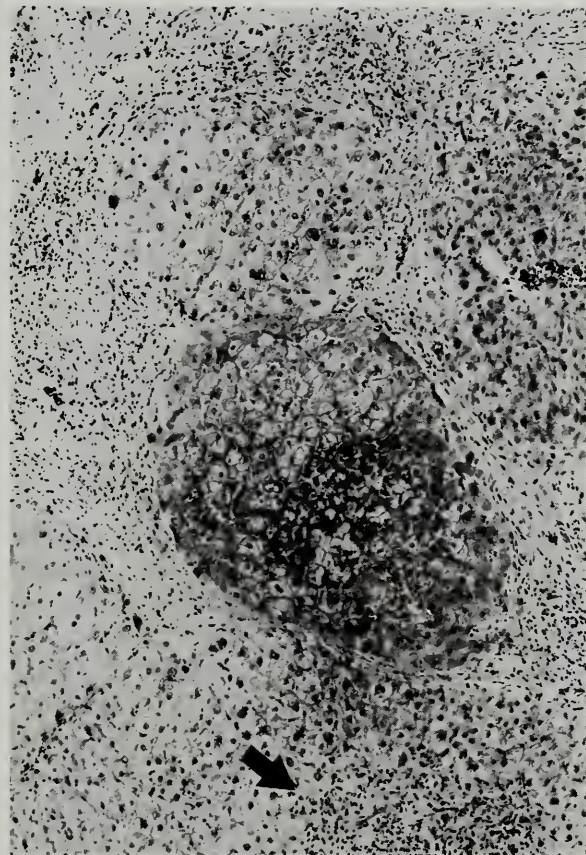


FIGURE 1b. Liver biopsy from patient #4. A more established cirrhosis is present with less dramatic inflammatory component. Some areas of piece-meal necrosis are present (arrow). (Hematoxylin and eosin, 110x)

to 1.98 gm/dl and SMA was positive at 1:20. Bilirubin and AST levels fell to 1.9 and 65 respectively when methyldopa was discontinued. Liver biopsy revealed CAH with established cirrhosis (Figure 1b). Five months later, the patient developed variceal bleeding and died following a portacaval shunt. *Patient No. 5* was a 60-year-old black female who had received methyldopa and hydrochlorothiazide in combination for nearly ten years. Ascites developed in the month prior to admission. No other etiology of her disease was evident. SMA was positive at 1:80 and gamma globulin level was increased at 3.6 gm/dl. Liver biopsy disclosed well-developed cirrhosis with features of CAH. The initial AST level of 39 was unchanged by discontinuation of methyldopa. *Patient No. 6* was a 40 year-old-white male who admitted drinking modest amounts of alcohol (two to four oz./day). After three years of methyldopa and hydrochlorothiazide, he experienced an episode clinically resembling acute viral hepa-

titis but viral markers were negative. At this time, his AST level was 382 IU/L and serum bilirubin 1.6 gm/dl. He was continued on methyldopa for a period of greater than one year afterwards with persistent but less marked AST elevations (79 IU/L) before the agent was discontinued. His liver biopsy showed a pattern of mild CAH with cirrhosis; no features suggestive of alcoholic liver disease were present. No significant change in transaminase levels was noted on cessation of therapy.

DISCUSSION

Our patients differ from those described previously with methyldopa-induced liver disease in that five of the six had taken methyldopa for long periods of time without apparent hepatotoxicity; these five demonstrated cirrhosis on biopsy at the time of presentation. Only one patient had classical chronic active hepatitis without cirrhosis, and no case of subacute hepatic necrosis or acute hepa-

METHYLDOPA HEPATITIS

titis was observed. At initial diagnosis, two patients were jaundiced, while in three ascites was the presenting symptom. In previous reports of methyldopa-induced liver damage, post-necrotic cirrhosis was noted in follow-up in several cases who had had severe acute liver damage; however, cases with indolent liver damage leading to cirrhosis have not been extensively reported. Cirrhosis was noted to be present at diagnosis of methyldopa-related liver disease in two of twenty cases in a previous study.⁸ One patient had received methyldopa for 38 weeks, but in the second instance, methyldopa had been taken for only three weeks and the cirrhosis was thought to represent a pre-existing condition.

It is difficult to be absolutely certain that methyldopa was causative in the five cirrhotic patients, since rechallenge with the offending drug was not performed, and would not be considered ethical while alternative agents were readily available. Inadvertent rechallenge provided the one "definite" case (CAH without cirrhosis) in our series. Thus the evidence for methyldopa-induced liver injury in these cases, as in those described previously, is largely circumstantial. Rapid resolution of AST levels with cessation of therapy is the next best clue short of rechallenge, and this is further strengthened if the liver biopsy features and serologic tests are compatible with CAH. This pattern was seen in cases two and three. However, cases four through six, those with possible methyldopa liver injury, are harder to prove and are included only to suggest that the spectrum of liver injury *may* be wider than we now recognize. The problem of implicating a drug as a "low-grade" hepatotoxin is compounded further in the case of chronic indolent liver injury: enzyme levels cannot be expected to improve dramatically on withdrawal of the agent since they are not markedly elevated to begin with. Similarly, dramatic improvement of symptoms will not be likely to occur.

While AST levels are not reliable for monitoring development of fibrosis and cirrhosis in pa-

tients treated with methotrexate,⁹ periodic AST measurement may be helpful in methyldopa-related liver injury, since all our patients at presentation had elevated AST levels. Elevations of AST were documented over a one year period prior to discontinuation of methyldopa in one case (patient #6) in our series.

Of additional interest is the finding that all six patients described in this report were on hydrochlorothiazide as well as methyldopa, either as a separate agent or as the combination, Aldoril®. This association has been present in several previous case reports of CAH related to methyldopa.^{2, 3} It may be explained as the coincidental administration of two common antihypertensive agents; however, the possibility of synergistic toxicity cannot be excluded.

In summary, asymptomatic indolent liver injury due to methyldopa eventuating in cirrhosis may be the most common form of liver injury seen due to this agent in the 1980's. A firm diagnosis of indolent methyldopa liver injury leading to cirrhosis is difficult to make and will require a careful longitudinal study of larger numbers of patients. Periodic screening for AST elevations should facilitate the early recognition of methyldopa-treated patients at risk before cirrhosis ensues. We suggest that transaminase levels be obtained prior to beginning therapy with methyldopa, at three to six months intervals initially, and at yearly intervals thereafter. AST elevations prior to initiation of therapy should preclude use of this agent. Asymptomatic AST elevations occurring in patients on methyldopa should not be ignored since CAH may be present despite absence of symptoms. When abnormalities are detected, a liver biopsy may be indicated unless the brevity of the drug use interval makes this unnecessary. For most patients with persistent AST elevations, methyldopa should be discontinued and AST levels monitored for evidence of resolution while an alternate anti-hypertensive regimen is undertaken. □

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PHYSICIAN RECOGNITION AWARDS

The following SCMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned.

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HEALTH PROMOTION BELIEFS AND ATTITUDES OF PHYSICIANS: A SURVEY OF TWO COMMUNITIES IN SOUTH CAROLINA*

FRANCES C. WHEELER, Ph.D.
DANIEL T. LACKLAND, M.S.P.H.
JOHN V. RULLAN, M.D., M.P.H.

There is growing recognition that certain life-style risk factors, such as smoking, alcohol and drug misuse, poor nutrition, lack of physical activity and stress, are major contributors to unnecessary morbidity and premature mortality in the United States today. Although a variety of health promoting behaviors have been linked to decreased morbidity and mortality,¹ preventive health practices are not considered optimal within the population.^{2, 3}

Individuals must accept responsibility for reducing their own risks, but physicians are thought to be in a unique position to encourage and influence health behavior change. Physicians are considered by the public to be the single best, most reliable and credible source of health information.⁴ On the other hand, less is known about physicians' beliefs regarding health promotion practices of their patients. Studies in Massachusetts⁵ and Maryland⁶ found that a large number of physicians believe that health promotion is important and that the physician can and should play an important role in this area. To provide additional information on this topic, for a southern, non-urban population area, this paper examines health promotion beliefs and attitudes of physicians in two communities in South Carolina.

METHODS

A questionnaire was mailed in December, 1987, to 98 practicing physicians in Florence and Anderson, South Carolina, with primary specialties in general practice, family practice, internal medicine, and obstetrics/gynecology. This mailing was directed to all physicians whose practice was located in either of the two communities

and whose primary specialty area was listed as general practice, family practice, internal medicine, or obstetrics/gynecology by the South Carolina Medical Association. Follow-up mailings and telephone calls were made to non-respondents. Of the 98 physicians in the sample, 87 completed the questionnaire, for an overall response rate of 89 percent.

The questionnaire, as used in previous studies,^{4, 5} consisted of multiple-choice questions with scaled responses. The following issues were covered: beliefs about health promotion, involvement in health promotion activities, confidence in dealing with behavior change, support for health promotion activities, and optimism about chances for success.

RESULTS

Characteristics of Respondents

Among the 87 respondents, 47 were located in the community of Anderson and 40 were located in the community of Florence. By specialty, 9% were in general practice, 39% in family practice, 30% in internal medicine, and 22% in obstetrics/gynecology. Ninety-eight percent were male. The year of graduation from medical school ranged from 1933 to 1984, with a mean of 1966. Fifty-four percent of respondents graduated from medical school in 1970 or later. There were no differences between respondents and non-respondents by community, by specialty, or by year of graduation from medical school.

Beliefs about Health Promotion

Respondents were asked to indicate on a four-point scale how important each of 23 health-related behaviors was "in promoting the health of the average person." Table 1 shows the behaviors that were considered "somewhat important" or "very important" by 95% or more of respondents.

* From the South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, SC 29201 (address correspondence to Dr. Wheeler).

HEALTH PROMOTION BELIEFS

While other health promoting behaviors (such as alcohol moderation or elimination, decreasing salt consumption, engaging in regular aerobic exercise) received less emphasis, the overall picture is that physicians recognize personal lifestyle behaviors as important to improving health status.

No significant differences were observed among the four specialty groups. Only one health-related behavior (avoiding excess calorie intake) showed a significant difference among age groups, as defined by year of graduation from medical school. Older physicians (those graduated before 1950) were less likely to stress the impor-

tance of reducing caloric intake.

Involvement in Health Promotion Activities

Physicians' involvement in health promotion was assessed by the extent to which they reported "routinely" gathering information from patients on smoking, alcohol, drugs, stress, exercise and diet. Responses by specialty are summarized in Table 2. Nearly all (90 percent) indicated that they routinely gathered information in one or more of the areas listed, but less than one-third (28 percent) reported that they routinely asked about all of these behaviors. Four out of five physicians

TABLE 1

Percentage of Physicians, by Specialty, Perceiving Health Promotion Behaviors as Very Important or Somewhat Important to the Average Person

<i>Behavior</i>	<i>Family Practice</i>	<i>General Practice</i>	<i>Internal Medicine</i>	<i>Ob-Gyn</i>	<i>Total</i>
	n=34	n=8	n=26	n=19	n=87
Eliminate cigarette smoking	100%	100%	100%	100%	100%
Eat a balanced diet	100%	100%	100%	100%	100%
Avoid excess calorie intake	100%	100%	92%	100%	98%
Avoid foods high in saturated fats	100%	100%	96%	95%	98%
Always use a seatbelt when in a car	97%	100%	96%	100%	98%
Avoid foods high in cholesterol	100%	100%	96%	89%	97%
Avoid undue stress	100%	88%	96%	89%	95%

Note: Complete information on other health promotion behaviors is available from the authors upon request.

TABLE 2

Percentage of Physicians, by Specialty, Reporting Routinely Gathering Information about Health-Risk Behaviors

<i>Behavior</i>	<i>Family Practice</i>	<i>General Practice</i>	<i>Internal Medicine</i>	<i>Ob-Gyn</i>	<i>Total</i>
Smoking	76%	75%	92%	74%	80%
Alcohol ^o	62%	38%	88%	58%	67%
Other drugs	71%	50%	77%	53%	67%
Diet	35%	25%	62%	42%	44%
Exercise ^{oo}	35%	38%	77%	32%	47%
Stress ^{oo}	29%	25%	69%	26%	40%

Chi-squares for differences among the specialties: ^op<0.05, ^{oo}p<0.01.

HEALTH PROMOTION BELIEFS

routinely ask patients about smoking, two out of three routinely ask about alcohol and other drugs, while less than half routinely gather information about diet, exercise, or stress.

There were significant differences among specialties with respect to the types of behaviors about which they routinely ask patients. General practitioners were less likely than other physicians to report that they routinely gathered information about alcohol, and internists were more likely to ask patients about exercise or stress.

Confidence in Dealing with Behavior Change

Physicians' confidence in their ability to help patients change their behavior was determined by self-reported assessment of preparedness for and success in patient counselling. For each of the six areas of interest (smoking, alcohol, drugs, diet, exercise, stress), physicians were asked to indicate the extent to which they felt prepared to counsel patients and the extent to which they believed they were successful in helping patients achieve behavior changes.

As shown in Table 3, physicians varied somewhat in the extent to which they thought they were prepared to counsel patients on different risk factors. They were most likely to report feeling prepared to counsel patients about smoking and alcohol use, and least likely to report feeling prepared to counsel about stress. In assessing their current success in helping patients change behavior, physicians expressed considerable less confidence. From 48 to 68 percent reported success in helping patients change behavior. However, only six to eight percent thought they were "very successful," while most (45 to 59 percent) thought

they were "somewhat successful" in one or more areas. Physicians were most likely to report success in motivating patients to exercise and least likely to report success in changing alcohol use. There were no statistically significant differences by type of specialty or year of graduation from medical school for either physicians' preparation or current success in counselling.

Physicians were asked how successful they thought they could be in helping patients change behavior if given appropriate support. As compared to the proportions who described themselves as currently successful, a considerably higher proportion were optimistic about their potential for success in helping patients exercise, stop smoking, manage stress, modify diet, modify drinking habits, and modify drug use. There were no significant differences by type of specialty or year of graduation from medical school.

Support for Health Promotion Activities

Most physicians (85 percent) reported that they personally provided patient education rather than relying on a nurse or other health professional. When asked to indicate what different types of assistance might be valuable to them in working with patients, physicians most often specified information for patient referral and literature for patients (Table 4). Videotapes for use with patients were least likely to be reported as valuable.

Physicians were also asked about the likelihood of attending continuing medical education programs to strengthen their skills in changing behaviors related to risk factors. Over half of respondents indicated that they would be likely to attend an appropriate course. Topics preferred were as

TABLE 3

Percentage of Physicians Expressing Confidence in Dealing with Behavior Change in Patients

<i>Behavior</i>	<i>Prepared to Counsel Patients</i>	<i>Currently Successful in Helping Patients</i>	<i>Potentially Successful if Given Support</i>
Smoking	92%	59%	78%
Alcohol	90%	48%	76%
Other Drugs	80%	52%	70%
Diet	84%	57%	76%
Exercise	89%	68%	82%
Stress	74%	51%	78%

TABLE 4

Percentage of Physicians Reporting Types of Assistance as Valuable

Type of Assistance	Valuable to Physician
Information for patient referral	85%
Literature for patients	84%
Risk factor questionnaires for patients	77%
Risk factor training for physicians	77%
Behavior modification training for physicians	77%
Reimbursement for physician time	76%
Training for support staff	72%
Reimbursement for staff time	63%
Videotapes for patients	61%

follows: stress reduction (67%), diet and nutrition (63%), behavior modification (60%), alcoholism and alcohol abuse (59%), exercise and physical fitness (55%), smoking cessation (55%) and drug abuse (55%).

DISCUSSION

Most physicians agreed that health promoting behaviors are important to the average person, although there were varying levels of agreement on different risk behaviors. This finding is consistent with previous studies^{5, 6} and emphasizes the need for consensus-building among medical professionals to reduce conflicting public perceptions of the relative importance of various health behaviors. This should involve demonstrating the effectiveness of different prevention strategies, ensuring the scientific validity of health promotion beliefs, and providing public and professional education. Not only do physicians believe that health promotion is important, a substantial proportion are involved in health-promoting activities in their daily practice. Reported levels of success in changing patient behavior are not very high, but physicians did express considerable interest in building their health promotion skills. In addition, physicians expressed a high level of optimism about their chances of helping patients to make behavior change—if provided appropriate support.

More efforts are needed to assist the physician in fulfilling his/her role in health promotion. Continuing medical education courses are needed to increase consensus in the medical community about the relative importance of health promoting behaviors, to increase physicians' abilities to

help patients change their health-risk behaviors, and to provide physicians with information about available support services, including educational materials, community resources, and allied health personnel. Physicians do believe in the importance of health promotion, and given appropriate support—including financial incentives for practicing preventive medicine—they can become more effective in assisting patients to alter unhealthy habits. □

ACKNOWLEDGEMENTS

The authors would like to thank Dr. Henry Wechsler for permission to use the survey instrument, Drs. Carol Macera, Jeff Jones and Clark Heath for manuscript review and critique, and Marge Cooley and Linda Bennett for excellent secretarial support. This work was supported in part by Cooperative Agreement Number U50/CCU402234 from the Centers for Disease Control.

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Editorials

BELIEFS, ATTITUDES, AND HEALTH PROMOTION

In this issue, Wheeler and colleagues describe the health promotion beliefs and attitudes identified by a survey of 87 physicians in two South Carolina communities. Most (85%) of the physicians reported that they personally provided information about healthy lifestyles rather than delegating this task to office personnel. Four out of five routinely asked their patients about smoking; two out of three routinely asked about use of alcohol and other drugs, while fewer than one-half routinely inquired about diet, exercise, or stress. Although most of the respondents considered themselves to be "somewhat successful" at modifying patients' behavior, fewer than one in ten considered themselves to be "very successful." Most indicated a need for continuing education courses designed specifically to improve their health promotion skills.

Promoting healthy lifestyles has long ranked among the top priorities of the South Carolina Medical Association. As to the level of our activity in this area, we need make no apologies. Health promotion has frequently dominated the addresses at our meetings, the content of our seminars, and our priorities before the Legislature. The Health Van is a new concept but not a new point of emphasis. If these comments seem a bit defensive, it is by design rather than accident. The paper by Wheeler and colleagues adds to a large body of literature addressing the beliefs and attitudes of physicians toward health promotion. At times, not all of the conclusions seem entirely realistic.

Consider smoking, for example. Surveys among physicians have clearly identified elimination of smoking as the single most important health behavior needing their attention.¹ No argument. Yet I take umbrage to a conclusion in the prestigious *American Journal of Medicine* that "physicians should provide advice about smoking as a regular part of *every* patient visit." (italics mine).² While such a conclusion aptly applies to the annual physical examination, it seems entirely unrealistic

to expect busy physicians to initiate open-ended conversations about smoking while, say, sewing up lacerations or administering cancer chemotherapy. Everything in its proper time! Most patients would, I suspect, agree. Surveys of patients indicate that they place more priority on receiving appropriate treatment without delay than on some of the things that health educators like to talk about, such as continuity of care and promotion of wellness.³

There are two issues: (1) *what* should we do? (2) *how* should we do it? A reasonable assessment of *what* health promotion desiderata can be readily accomplished was provided by a questionnaire given to third-year medical students.⁴ The students expressed high confidence in the ability of physicians to provide health screening physical examinations, blood pressure control, cancer detection education, family planning, health counseling and education, immunizations, and sexually transmitted disease prevention. However, the students expressed low confidence in the ability of physicians to promote smoking cessation, nutrition counseling and education, and weight reduction. Other surveys indicate that many physicians are ill-equipped to deal with alcoholism,⁵ sexual preference,⁶⁻⁷ and family matters.⁸ Hence, the observation by Wheeler and colleagues that South Carolina physicians were often unsure of their abilities to have a positive impact on such things as smoking, substance abuse, and stress management is hardly surprising.

As to the second issue, *how* we should do it, it must be appreciated that there is an important stumbling block: the lack of adequate reimbursement mechanisms. Adequate counseling takes time. Most payment schemes provide little or no allowance for physicians' time given to counseling on such matters as smoking cessation and stress management. If health promotion is to be more than the rendering of gratuitous advice, then there must either be adequate reimbursement mechanisms or alternative strategies to one-on-

one counseling by physicians.

One strategy is to delegate such counseling to office personnel. A recent survey in Texas indicated that physician assistants are quite willing to undertake a wider role in health promotion although they, too, are uncertain about their abilities to influence such things as smoking, drinking, and use of illicit drugs.⁹ Another strategy is to organize "wellness programs." Adequate models exist by which physicians can assume leadership in promoting wellness throughout their communities.¹⁰ It is unrealistic to expect that advice given during an annual physical examination will be heeded throughout the year without reinforcement. It is therefore appropriate that such wellness programs require time commitments by patients as well as by physicians.

That most of the physicians surveyed by Wheeler and colleagues were eager to improve their health promotion skills is encouraging. What is needed from educators are more clear-cut demonstrations that our attempts to influence behaviors are indeed successful. Physicians, like most people, are more willing to devote time and energy to those projects that have a reasonable possibility of success.¹¹ Educators should convince us of the effectiveness of new techniques, just as we explore new ways by which to continue our lead-

ership in promoting health throughout our communities.

—CSB

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SLOW POISONS

More than a century has passed since Oliver Wendell Holmes wrote of his firm belief that "if the whole material medica . . . could be sunk to the bottom of the sea, it would be all the better for mankind, and all the worse for the fishes." That Holmes' opinion no longer holds true is no better exemplified than in the case of drugs for the treatment of hypertension. Still, side-effects continue to be the major stumbling block to successful use of these drugs. In this issue, Drs. Lee and Denton describe a newly-recognized, insidious side-effect of anti-hypertensive therapy: chronic hepatitis and indolent cirrhosis due to methyldopa (Aldomet).

Methyldopa has long been associated with acute hepatitis. Ordinarily, the symptoms of acute hepatitis bring patients to medical attention and thereby prompt discontinuation of the drug. Five of the six patients described by Drs. Lee and Denton had no history suggestive of liver toxicity, yet showed evidence of cirrhosis at presentation. While the authors acknowledge that the evidence of methyldopa liver injury is largely circumstantial, they make a cogent argument that serum aspartate aminotransferase levels (AST; alternatively, SGOT) ought to be measured periodically in patients taking methyldopa. They conclude that asymptomatic, indolent liver injury "may be the most common form of liver injury seen due to this agent in the 1980's."

Reflecting on this timely report, I find three reminders. First, we should remember that drugs producing an *acute* side-effect on one or another organ can also cause *chronic* damage, if continued. For example, nitrofurantoin (Macroban) can not only cause an acute, symptomatic pulmonary reaction sometimes with effusion but can also cause insidious pulmonary fibrosis; phenytoin (Dilantin) can not only cause acute ataxia but can also cause permanent damage to the cerebellum with Purkinje cell loss. Second, we should remember the potential for unexpected drug interactions. Lee and Denton observed that all six of their patients were receiving hydrochlorothiazide along with methyldopa—either separately or as part of the combination agent (Aldoril). Anecdotally, hydrochlorothiazide seems to be associated with other drug reactions, such as azotemia related to tetracycline and widespread vasculitis related to allopurinal (Zyloprim).

Finally, it pays to be ever-cognizant of what drugs patients are receiving, and to *think generically*. Only by *thinking* of drugs by their generic (as opposed to trade) names can we appreciate the full impact of reports such as that by Drs. Lee and Denton—and thus ask ourselves whether our next patient might in fact manifest such an indolent form of drug toxicity.

—CSB

ON THE COVER: *GENTIANA CATESBEI*

The lovely blue gentian featured on this month's cover was named by Thomas Walter and Stephen Elliott, both South Carolina botanists, in honor of Mark Catesby, a British naturalist who first described it in the 18th century while on an excursion to the southern states. It is indigenous to the grassy swamps of North and South Carolina, where it flowers from September to December.

Jacob Bigelow, M.D., in his three volume work on *American Medical Botany*, published in Boston in 1818, says of the blue gentian, also known as Sampson's Snake Root:

I have found the root of this plant . . . invigorates the stomach and gives relief in complaints arising from indigestion. Dr. [James] Macbride, at whose suggestion I first employed it, entertained a high opinion of its tonic power in the cases of debility of the stomach and digestive organs.

In Mr. Elliott's *Botany of the Southern States*, we are told that . . .

it is used with decided advantage in cases of pneumonia, where the fever is nervous, and that it acts as a tonic and sudorific. . . . It is said' to increase the appetite, prevent the acidification of the food, and to enable the stomach to bear and digest articles of diet, which before produced oppression and dejection of spirits.

Bigelow's *Botany* from which the cover photograph comes is of interest as the first American book with plates printed in color. When the process of handcoloring the plates became too slow and too expensive, Bigelow introduced a method of printing in color. The last fifty plates of this work are done by this method.

—BETTY NEWSOM
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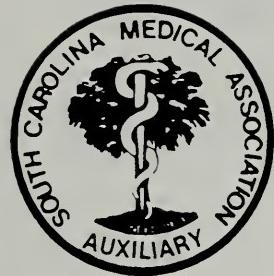


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SCMA AUXILIARY REGIONAL VICE PRESIDENTS

The SCMA Auxiliary's image of service is based upon the teamwork of an annual membership of over 1,600 physicians' spouses across our state. Their common bond flows from the concerns they share for the health and well-being of their medical families and the community as a whole. A year filled with informative meetings, beneficial service projects and relaxing socials help to cement friendships and increase membership.

The four Regional Vice Presidents of the SCMA Auxiliary—Central: Mrs. John M. Little, Jr.; Eastern: Mrs. William Hester; Southern: Mrs. Randolph D. Smoak, Jr.; Western: Mrs. C. Wayne Fiscus—serve as liaisons between the state Board and county Auxiliaries. Utilizing newsletters, telephone calls, personal notes and visits, they have maintained contact with the organized counties. Serving as communications links, they offer support and information and address their challenges with enthusiasm. This, in turn, has developed friendships, rapport and a sharing of ideas that have helped to achieve our Auxiliary goals. The state Membership Committee has focused upon retaining, recruiting, and increasing membership. Their campaign has been very successful this year with membership already at 1,460 as of mid-January.

While efforts to improve community health remain a primary goal for our members, the changing social environment has heightened efforts to respond to our own medical family concerns as well. The support services (medical malpractice support groups being just one of many) are encouraged and provided by auxilians for the special stresses of medical family life.

When the Auxiliary mounts a campaign to fight child abuse or substance abuse or to promote health education, such as with the new van, it does so with the broad range of resources supplied by the physicians of our state and county medical associations.

Another arm of the Auxiliary is in the legislative area. It is one of decisive support for organized medicine's effort to impact the issues that affect physicians and their ability to deliver quality patient care. These legislative activities, such as a Day at the Capitol, serve to educate our auxiliary members on the issues and the importance of being involved.

Continued financial support of medical students and schools through AMA-ERF and scholarships has been accomplished through numerous innovative fund-raising projects. Auxiliary contributions nationwide to AMA-ERF have grown to nearly \$2 million dollars to help support medical education at a time when it desperately needs our help.

Our county and state Auxiliaries have a visible and viable voice that gives them the credibility to articulate the concerns of their members in a variety of forums. From health promotion to legislative efforts, the fact that it is connected in name and image to organized medicine makes the Medical Auxiliary a force to be looked up to and recognized in the whole scope of its endeavors. Positive commitment to the SCMA Auxiliary is high and we are looking forward to Convention and the completion of an exciting and positive year.

Respectfully submitted,
KATHLEEN CLASS FISCUS (MRS. C. WAYNE)

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CLINICAL EXPERIENCE WITH CIPROFLOXACIN: ANALYSIS OF A MULTI-PRACTICE STUDY*

C. P. DUNBAR, M.D.**

RONALD L. ASHTON, M.D.

LARRY ATKINSON, M.D.

HENRY F. CROTWELL, M.D.

HENRY M. FARIS, M.D.

HOWARD G. ROYAL, JR., M.D.

DUNCAN W. TYSON, M.D.

CHARLES H. WHITE, JR., M.D.

Ciprofloxacin (CIPRO) is a newly approved (1987) antimicrobial which demonstrated high activity in vitro against gram-negative and gram-positive aerobic pathogens.^{1, 2} It has excellent in vitro activity against Enterobacteriaceae species, *Pseudomonas aeruginosa*, *Haemophilus* and *Neisseria* species.³ Orally administered, ciprofloxacin exhibits therapeutically achievable Minimal Inhibitory Concentrations (MICs) against methicillin-resistant *Staphylococcus aureus* and is the most potent oral antimicrobial available for use against this pathogen.⁴ Therefore, ciprofloxacin has been regarded as an excellent oral alternative to injectable antibiotics.

Most of the literature reports double-blind, controlled comparative trials intended for submission to the FDA for marketing approval. However, these studies contain extremely restrictive inclusion and exclusion criteria and may or may not be

related to how the product would perform in the day-to-day practice of medicine. Thus, an evaluation of the efficacy and safety of ciprofloxacin in day-to-day medical practice was performed. In the following, data from an open clinical multi-practice study performed in the state of South Carolina are reported.

PATIENTS AND METHODS

Guidelines for patients admitted into the study were established by a standardized protocol. Data were collected on brief, two-page Clinical Evaluation Forms (CEFs) completed by the investigators. Subsequently, the CEFs were retrieved and analyzed by Oxford Health Care, Inc., Clifton, New Jersey. Each physician investigator categorized all patients' infections as either lower respiratory tract, soft tissue, skin and skin structure, or other. Eight investigators from South Carolina entered 113 patients into the study. Only those patients who received ciprofloxacin alone as antimicrobial therapy were evaluated.

Several criteria determined patient selection. Inclusions: male and female inpatients or outpatients over 18 years of age who exhibited clinical evidence of lower respiratory tract infection, skin

* From practices and clinics in the following South Carolina localities: Leesville (Dr. Gunter); Greenville (Drs. Ashton and Faris); Anderson (Dr. Atkinson); York (Dr. Crotwell); Aiken (Dr. Royal); Florence (Dr. Tyson); and Sumter (Dr. White).

Address correspondence to Dr. Dunbar at B & L Family Practice, 106 Gunter Street, Leesville, S. C. 29070.

CIPROFLOXACIN

and skin structure infection, or soft tissue infection. Exclusions: females who were pregnant, nursing, or not practicing contraception; patients with known or suspected allergy to quinolone antibiotics or with known moderately to severely impaired renal function; those displaying clinical evidence of hepatic disease or requiring other concomitant antimicrobial therapy; and patients with known clinically impaired immunological function.

Physicians were asked to record adverse reactions, their duration and intensity, and the action taken in regard to medication adjustment or outcome. Any serious or unexpected reaction was to be reported within 72 hours to Miles, Inc. The investigators were to use their judgment regarding patient response to therapy and to adjust antimicrobial medication if response was determined inadequate. Patients were allowed to receive any other medication deemed necessary by the physician. The package insert acted as the guideline for prescribing information.

BACTERIOLOGY

Specimens were collected, when available, from sites of suspected infection prior to the administration of ciprofloxacin. Physicians were also asked to obtain a culture at the end of ciprofloxacin therapy if culturable material was available. Sensitivity analysis was performed using ciprofloxacin disks provided by Miles, Inc. For patients with respiratory tract infections, sputum was processed for gram stain and culture whenever possible. However, many lower respiratory tract infections and closed wound infections precluded collection of a culture specimen.

RESULTS

A biostatistician at Oxford Health Care, Inc. supervised data processing. The statistics generated were descriptive in nature, tabulated exactly from the CEF. Complete as well as incomplete CEFs were included in the results, regardless of whether or not the physician followed every protocol parameter. All patients were included in the analysis of clinical efficacy, however only those patients who had a positive culture with an identified organism were included in the evaluation of bacteriologic efficacy.

No patient who received any type of anti-infective medication concomitantly with ciprofloxacin

was evaluable for either safety or efficacy. All 113 patients, with the exclusion of those who received a concomitant antimicrobial, were included in the analysis of tolerance to the drug and of adverse effects of treatment. The data indicated that no patient received a concomitant antibiotic in this study. Skewed data were eliminated when necessary.

A total of 113 patients (51 men and 55 women reported) aged 15 to 92 years (mean age 40.2 years) received 0 to 1500 mg of ciprofloxacin per day (mean dosage 995 mg per day) for 2 to 19 days (mean duration, 9.6 days).

The spectrum of infections treated comprises a variety that would be expected in a multicenter trial with eight participating physicians from across the state. For the total patient population, the majority of infections were classified as lower respiratory tract (34.6%), followed by soft tissue (25.9%), skin and skin structure (19.2%), urinary tract (7.7%) and other (12.5%). Of note, the majority of patients treated, 95.1%, were outpatients; hospitalized patients accounted for only 4.9% treated. Four patients were continuing ciprofloxacin therapy at the time of evaluation.

Patients were evaluated for both clinical and bacteriologic efficacy. All patients who received one dose of ciprofloxacin were considered for the evaluation of the clinical efficacy of therapy, regardless of whether or not a culture was obtainable. Physicians were asked to rate the final clinical outcome of the infection by indicating cure, improvement or failure. Final clinical outcome of therapy with ciprofloxacin for each diagnostic category is summarized in Table 1. Clinical cure was achieved in 74%, improvement in 23.1% of cases. Overall clinical cure plus improvement equaled 97.1% of treated infections. Only three patients (2.9%) had outcomes considered clinical failures by the treating physician.

Patients who had an initial culture that identified a pathogen were included in the analysis of bacteriologic efficacy. Positive cultures were obtained in 17 patients initially. Of these, in 14 cases the bacteria cultured and the outcome of therapy was specified. Negative cultures and cultures indicating normal flora were not evaluable. Within these parameters, for 14 of 113 patients the infection was microbiologically proven. Of the evaluable patients, bacteriologic cure equaled 42.9%, while improvement comprised 50%. Cure plus

TABLE 1
Final Clinical Outcome Classified by Location of Infection^a

	<i>Cure</i>	<i>Improv</i>	<i>Failure</i>	<i>% of total (No. of pts.)</i>	<i>Cure & Improv</i>
Lower respiratory tract	61.1% (22)	36.1% (13)	2.8% (1)	97.2%	
Soft tissue	88.9% (24)	11.1% (3)	0% (0)	100%	
Skin/skin structure	80.0% (16)	10% (2)	10% (2)	90%	
Urinary tract	87.5% (7)	12.5% (1)	0% (0)	100%	
Other	61.5% (8)	38.5% (5)	0% (0)	100%	
Total	74%	23.1%	2.9%	97.1%	

^aData unavailable for 9 patients.

improvement was 92.9%. Failure was reported in only 7.1% of cases.

The 14 positive cultures identified 16 organisms. These organisms were distributed across the diagnostic categories in the following manner: the majority of infections were classified as lower respiratory tract (87.5%), followed by skin and skin structure (12.5%). The soft tissue, urinary tract and other categories had no bacteriologically proven cases. Though urinary tract infection was not a category on the CEF, it was statistically separated for discussion and analysis. The nine reported pathogens and their bacteriologic outcome are summarized in Table 2.

Overall, seventeen (16.7%) infections were considered chronic. Both the final clinical and bacteriologic outcomes were indicated for the chronic infections. For eight patients, data were available as to the final clinical outcome. Two patients were cured and six improved. Additionally, for seven patients, information was available as to bacteriologic outcome. Two patients were cured and five improved. No failures were reported for chronic infections in either category.

ADVERSE REACTIONS

All 113 patients treated with ciprofloxacin were included in the evaluation of tolerance and ad-

TABLE 2
**Nine Pathogens Identified in 14
 Evaluable Cultures and Bacteriologic Outcome**

<i>Type of Organism</i>	<i>Outcome</i>		
	<i>Cure</i>	<i>Improv</i>	<i>Fail</i>
Pseudomonas species	1	2	0
Haemophilus influenzae	2	2	0
Staphylococcus species	0	0	1
Streptococcus pneumoniae	1	1	0
Staphylococcus epidermidis	0	1	0
Neisseria species	1	0	0
Klebsiella species	1	0	0
Streptococcus species	1	0	0
Streptococcus pyogenes	0	0	1

CIPROFLOXACIN

verse effects related to therapy. Of the 113 patients, 108 reported no side effects (95.5%). Five reports of ADRs were observed; one case of depression, two cases of nausea, and two rashes. Gastrointestinal (GI) symptoms comprised two (40%) ADRs. Only one ADR, a case of nausea, was considered definitely drug related. The other ADRs were considered either definitely not related, or uncertainly related to therapy. Ciprofloxacin therapy was maintained in two cases and discontinued in three. Only three patients (2.6%) discontinued treatment because of adverse reactions; one patient had rash, the other two had nausea. No abnormal laboratory findings were reported, nor were any reports of crystalluria found.

DISCUSSION

A relatively new class of antimicrobials, the fluoroquinolones, has emerged as a powerful new resource for physicians to treat a broad spectrum of infections. Ciprofloxacin is a potent member of this drug classification.

Analysis of this multicenter study indicates that there is a good correspondence between the *in vitro* activity of ciprofloxacin and the clinical efficacy of treatment with ciprofloxacin. Clinical cure was observed in 74% of all infections. Cure plus improvement equaled 97.1% of all cases.

Bacteriologic efficacy (cure plus improvement) equaled 92.9%, while clinical efficacy was 97.1%. Interestingly, bacteriologic efficacy was almost the same as clinical efficacy, though not quite as high. For eight chronic infections with a known clinical outcome, two were cured and six improved. For seven infections the known bacteriologic outcome was almost identical to clinical outcome; two were cured and five improved. Chronic, as well as acute, infections responded extremely well to ciprofloxacin therapy.

The safety of ciprofloxacin was assessed for all patients. Overall, therapy with ciprofloxacin was extremely well tolerated. Adverse experiences were infrequent and generally mild. Treatment with ciprofloxacin had to be discontinued for only three patients (2.6%) because of adverse experiences.

Furthermore, physicians reported 15 classifications of medications that were administered concomitantly with ciprofloxacin. Bronchodilators, theophylline, cardiotonics, and diuretics headed

the list. Still, adverse reactions were minimal. No patients were reported to have had an allergic reaction to ciprofloxacin, nor were any incidents of theophylline toxicity reported.

CONCLUSION

The isolation of etiologic bacteria is difficult, especially in infections of the lower respiratory tract and in closed wound infections. Clinical results reported here include cases with and without obtained culture and sensitivity results. Bacteriologic efficacy was determined by culture and sensitivity. The main purpose of the study was to gather a large amount of safety and efficacy data on ciprofloxacin, after its FDA approval, as used in a day to day clinical setting in order to confirm the results in smaller, more restrictive trials used for FDA approval of the product.

The present clinical experience has shown that a dosage of 500 to 1500 mg of ciprofloxacin therapy per day is effective in a broad spectrum of infections including *E. coli*, *Staphylococcus aureus*, *Proteus* species, *Streptococcus* species, including *S. pneumoniae*, *Pseudomonas* species and *Staphylococcus epidermidis*. In addition to an overall clinical efficacy (cure plus improvement) of 97.1%, the bacteriologic efficacy in patients was 92.9%.

Furthermore, the safety of ciprofloxacin was excellent. Adverse reactions were generally mild, gastrointestinal in nature and infrequent. In conclusion, it appears that ciprofloxacin offers ease of administration as well as high efficacy and safety in the treatment of a wide variety of infections that might well have previously required parenteral therapy and/or hospitalization.

SUMMARY

In a multi-practice study of 113 patients treated with ciprofloxacin (mean daily dosage, 995 mg per day; mean duration of treatment, 9.6 days) for a variety of infections, 14 were microbiologically proven. Of these, bacteriologic cure and/or improvement resulted in 92.9% of cases. For all 113 infections, clinical cure and/or improvement resulted in 97.1% of cases. A total of 17 infections were classified as chronic. Therapy with ciprofloxacin was discontinued in three (2.6%) of 113 patients because of adverse effects. Overall, there were 5/113 (4.4%) adverse reactions (ADRs). Only one ADR was related definitely to ciproflo-

acin therapy. Two ADRs were definitely not related; in two the relationship was uncertain. Two patients of the five (40%) elected to continue ciprofloxacin therapy despite mild side effects. □

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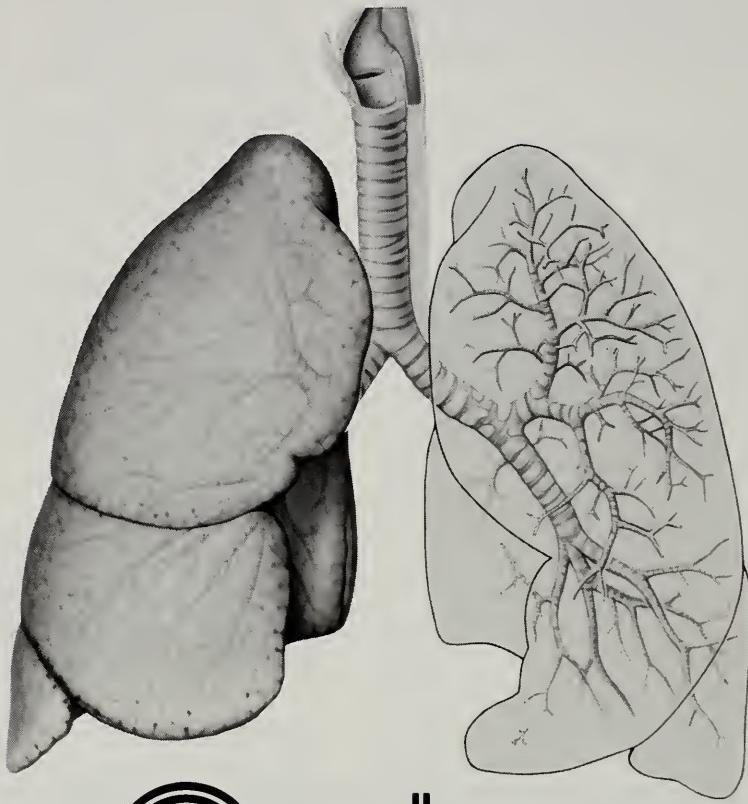
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Precautions:

- Discontinue Ceclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of nonsusceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
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- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.
- Adverse Reactions: (percentage of patients)
Therapy-related adverse reactions are uncommon. Those reported include:
 - Gastrointestinal (mostly diarrhea): 2.5%.
 - Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
 - Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, and serum-sickness-like reactions that have included erythema multiforme [rarely, Stevens-Johnson syndrome] or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever): 1.5%; usually subside within a few days after cessation of therapy. Serum-sickness-like reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.
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 - As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
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SEROPREVALENCE OF HUMAN IMMUNODEFICIENCY VIRUS IN MENTAL HEALTH PATIENTS*

WALTER K. CLAIR, M.D.**

G. PAUL ELEAZER, M.D.

LINDA JEAN HAZLETT, B.A.

B. ANN MORALES, B.A.

JUDITH M. SERCY, B.S.

LEE V. WOODBURY, M.D.

There have been numerous reports on the prevalence of human immunodeficiency virus (HIV) infection among parenteral drug abusers.¹⁻³ However, we were able to find few published reports on the prevalence of HIV infection among prisoners³⁻⁷ and none on psychiatric inpatients.

These three populations (parenteral drug abusers, prisoners, and psychiatric inpatients) have always been a challenge to personal and public health care providers because of the complicated legal and ethical issues surrounding their care. The parenteral drug abuse population is a major reservoir from which HIV infection is spread to the heterosexual population. And while they have been granted little attention, prisons and inpatient psychiatric institutions, rather than being sanctuaries from the HIV epidemic, may become additional reservoirs of infection.

Because our hospital serves each of these populations, we undertook a study to assess the seroprevalence of HIV infection among our patients. Our hope was to use this and other information to help establish rational policies and procedures based on reasonable estimates of HIV seropositivity in our institution rather than through extrapolation from data derived from other settings.

From January 18, 1988 through February 29, 1988, we did HIV serological tests on the sera of 1,530 patients. The testing was done anonymously

on the residual sera of blood that had been sent for blood chemistries.

METHODS

Hospital Description

James F. Byrnes Medical Center is a 166 bed facility that provides acute medical-surgical care and laboratory testing for inpatients of the various facilities of the South Carolina Department of Mental Health. These patients include inmates from the S. C. Department of Corrections (Corrections), those involuntarily committed to the Chemical Dependence Detoxification Program (Detox), and the general patient pool of the S. C. Department of Mental Health (DMH).

Design

Our research proposal was approved by the S. C. Department of Mental Health Institutional Review Board and the S. C. Department of Corrections, once we presented an acceptable protocol for assuring anonymity and minimizing duplicate testing.

After performing the requested blood chemistries, our laboratory routinely stores residual sera at four degrees centigrade for seven days. From January 18, 1988 through February 29, 1988, each serum sample that had at least 1.5 ml. of residuum was assigned a numeric code which was recorded on a data log sheet with the corresponding patient's name, hospital number, date of birth, race, sex, county of residence, and ward or referring facility. Laboratory personnel gave these data log sheets to data entry personnel who input this

* From the Byrnes Medical Center, Columbia, S. C.

** Address correspondence to Walter K. Clair, M.D., C. M. Tucker Human Resources Center, 2200 Harden Street, Columbia, S. C. 29203.

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information into a computer using the program dB_EASE III Plus (registered trademark Ashton-Tate). The database was polled for each patient's name as it was entered to check for name-based duplicate records. If the name was already in the study, the record was not entered and the corresponding data were removed from the log sheet.

The edited log sheets were returned to laboratory personnel who forwarded the corresponding sera to the laboratory of the S. C. Department of Health and Environmental Control. There the sera were subjected to enzyme-linked immunosorbent assay (ELISA). Those sera that were repeatedly reactive on ELISA testing were tested by Western blot and designated positive if bands p24 and gp41 were present. These serology results were reported back to our staff in a manner such that two data sets were maintained and managed separately. One data set contained the patients' names, demographic data and the numeric codes of the corresponding sera. The other contained numeric codes and serology results only.

Our hospital maintains logs of all patients it knows to be HIV positive and of all patients on whom HIV serological tests have been requested through our laboratory. From these logs, we identified that subset of sera that was from patients already known to be HIV positive or were presumably tested on the basis of clinical suspicion. We labeled these combined groups "suspects."

After testing 1,530 samples of residual sera, the demographic data set was again checked for duplicates. This time we used the hospital number, birth date and name to eliminate duplicates. If the serum was from a patient on our log of "suspects," it was so noted in a field on the record. Having minimized duplication, the name, hospital number, and county of residence were deleted from each record. The demographic data set was then merged with the data set containing numeric codes and test results producing a single anonymous data set with information on 1,496 serum samples.

RESULTS

Of 1,496 unduplicated samples, 36 were positive on ELISA testing. Eight (Table 1) were seropositive by Western blot representing 0.53% of those tested. All donors of Western blot positive sera were male. Six were black, and only one was older than 33.

The percentages of Western blot positives in

TABLE 1
Characteristics of Western Blot Positives

Service	Sex	Race	Age	Suspected
Corrections	M	B	26	No
Corrections	M	B	32	No
Corrections	M	B	46	Yes
Detox	M	B	30	Yes
Detox	M	W	33	Yes
DMH	M	B	26	Yes
DMH	M	B	26	No
DMH	M	W	27	No

Corrections indicates inmates from the S. C. Department of Corrections; Detox, patients in the Chemical Detoxification Program; DMH, the general patient pool of the S. C. Department of Mental Health.

various subgroups are summarized in Table 2. The prevalence of Western blot positivity was greatest among Corrections Ward sera and those grouped as suspected.

Table 3 depicts characteristics of the three services of our hospital: inmates from the Department of Corrections (Corrections), participants in the Chemical Dependence Detoxification Program (Detox Program), and general Department of Mental Health patients (DMH). The trends toward greater male, black, and youth predominance paralleled the significantly greater prevalence of HIV positive sera on the Corrections Ward. This table further shows that patients were most likely to be known HIV positives or to have been previously tested through our laboratory if they were on the Detoxification Ward.

One can see from Table 4 that all those suspects who were ELISA positive were also positive by Western blot. In contrast, only four of the 32 ELISA positives among the unsuspected were confirmed to be seropositive by Western blot.

COMMENTS

This study was designed to provide us with data useful in developing policies and procedures in the three patient populations served by our facility: psychiatric inpatients, alcohol and drug abuse patients, and prison inmates.

The 0.24% prevalence in psychiatric inpatients (our largest referral group) was noteworthy because of the lack of published prevalence data on

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this subgroup and the special management problems presented by these patients. The prevalence we found in this group is remarkably comparable to the 0.3% reported for the first 12,000 general hospital patients tested by the Center for Disease Control's blinded surveys in sentinel hospitals.⁴ This would suggest that, at least at the present time, there appears to be no increased risk of

TABLE 2

% (No.) Testing Western Blot Positive

<i>Sex</i>		
Male	.84 (8/952)	
Female	.00 (0/544)	
<i>Race</i>		
Black	.94 (6/639)	
White	.24 (2/849)	
Other	.00 (0/8)	
<i>Age</i>		
<35	1.11 (7/630)	
35	.12 (1/866)	
<i>Service</i>		
Corrections	4.62 (3/65)	
Detox	.99 (2/203)	
DMH	.24 (3/1,228)	
<i>Suspected</i>		
Yes	4.49 (4/89)	
No	.28 (4/1,407)	
<i>Total</i>	.53 (8/1,496)	

Corrections indicates inmates from the S. C. Department of Corrections; Detox, patients in the Chemical Dependence Detoxification Program; DMH, the general patient pool of the S. C. Department of Mental Health.

TABLE 4

Suspected vs. Unsuspected Test Results

	<i>% Positive (n)</i>	
	<i>Suspected</i>	<i>Unsuspected</i>
ELISA	4.5 (4/89)	2.27 (32/1,407)
Western blot	4.5 (4/89)	.28 (4/1,407)

seropositivity among our psychiatric inpatients when compared to general hospital admissions.

The prevalence rate among patients admitted for chemical dependence was 0.99%. This rate was somewhat lower than we expected. However, since this ward consists largely of clients who are alcohol dependent with a variable number of parenteral drug abusers, this lower rate should not be interpreted as the seroprevalence among parenteral drug abusers in our referral base. Our study did not allow us to determine separate prevalence data for parenteral drug abusers.

In prison inmates admitted to our hospital, the prevalence rate was 4.6% which is greater than the 2.9% prevalence rate reported for 29,193 inmates tested by the Federal Bureau of Prisons.⁴ This difference most likely reflects our small numbers (3/65) and the referral nature of our population. Thus, our data should not be extrapolated to the general inmate population of South Carolina. Nevertheless, this group had our highest rate of seropositivity and is particularly noteworthy because the majority of admissions to this service are for surgical procedures. Forty-five of the 85 inmates on the Corrections Ward during the study period had an operative procedure.

In our study, serum was considered positive only when it was both repeatedly positive on

TABLE 3

Service Characteristics

	<i>% Male</i>	<i>% Black</i>	<i>% <35</i>	<i>% HIV Pos.</i>	<i>% Susp.</i>
Corrections (N=65)	91	51	52	4.6	9.2
Detox (N=203)	84	35	39	.99	16.3
DMH (N=1,228)	59	43	42	.24	4.0

Corrections indicates inmates from the S. C. Department of Corrections; Detox, patients in the Chemical Dependence Detoxification Program; DMH, the general patient pool of the S. C. Department of Mental Health.

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ELISA testing and confirmed by Western blot. Our data affirm the use of the ELISA test as a screening test rather than a diagnostic test. Had we relied solely on repeatedly positive ELISA tests, we would have inappropriately labeled 28 sera HIV positive. Because Western blots were done only on those that were repeatedly ELISA positive, we theoretically had an unknown number of false negatives. However, there is a consensus of opinion that using the ELISA and Western blot sequentially results in an insignificant number of false negatives.^{7, 8}

Of the eight sera that tested Western blot positive, half were from patients who were not suspected of being HIV positive (Table 1). Two of these unsuspected positives were on the Corrections Ward and two were among the general psychiatric patients. In contrast, both positive sera from chemically dependent patients came from patients who were suspected of being HIV positive. Other studies have also demonstrated that a significant number of HIV positive patients go unsuspected and are only discovered through anonymous testing programs.^{9, 10} These studies and our own validate the use of universal precautions in preference to "blood and body fluid precautions" labeling.

Our study is limited in that it is neither a complete survey, nor is it a random sample. We tested residual sera only from those who had serum chemistries ordered during our study period. Furthermore, not all of the samples had enough residual serum for HIV testing. While we do not believe our data can be generalized beyond our facility, these data provide the framework for continued surveillance in our three patient groups. We would urge caution in extrapolating our results to other regions of the country since the prevalence of HIV seropositivity varies considerably across the nation. However, psychiatric institutions in regions with reported AIDS case rates comparable to those of South Carolina may find this study useful. We urge that further studies be done on psychiatric inpatients to provide a broader database for policy makers.

SUMMARY

In contrast to the published data on Human Immunodeficiency Virus (HIV) infection in par-

enteral drug abusers, there is a paucity of data on prison inmates and virtually none on psychiatric inpatients. Because our facility serves each of these patient groups, we designed an anonymous seroprevalence study. We tested 1,496 unduplicated sera using sequential enzyme-linked immunosorbent assay (ELISA) and Western blot tests. The overall prevalence of Western blot positive serum was 0.53%. The prevalence rates for the different services of our hospital, Corrections, Detoxification Program, and general Department of Mental Health inpatients, were 4.62%, 0.99%, and 0.25% respectively. While these data demonstrate the increased prevalence of HIV infection among prison inmates, they fail to show a greater prevalence among South Carolina psychiatric inpatients than among general hospital patients. □

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LYMPHOMATOID PAPULOSIS: MOSTLY BENIGN BUT POTENTIALLY MALIGNANT— A CASE REPORT WITH A FATAL OUTCOME

LARRY H. PARROTT, M.D.*

Lymphomatoid Papulosis is usually a chronic intermittent skin eruption that spontaneously heals itself without permanent consequences. The disease was originally described in 1968 by Dr. Warren Macaulay.¹ Occasionally, the disease will convert to a cellular malignancy like Hodgkin's disease and then disseminate throughout the body. The basic pathophysiologic disturbance is the proliferation of monomorphic bizarre histiocytic cells in the dermis. This proliferation forms a clinically detectable nodule, which often ulcerates. These nodules will spontaneously disappear in six weeks to two months. The patient involved in this paper is a middle-aged black female who had a 15-year history of recurring nodules, which finally converted to a fatal form of mycosis fungoides.

CASE PRESENTATION

At the age of 38, this black female noted the occurrences of very innocuous small nodules of the skin. These were first biopsied in 1974. These showed an abnormal lymphoreticular infiltrate in the dermis. For the next nine years, these were followed by her family physician and dermatologist, and not considered a major factor in her health status. In 1977, she was admitted to the hospital for a hysterectomy for prolonged periods. She was noted to have mild diabetes and hypertension.

In 1983, she was admitted for MOPP therapy for the diagnosis of atypical lymphoma, made on her skin lesions. By this time, the skin lesions were large, ulcerating, and had abnormal lymphoreticular cells in the dermis with hyperchromatic pleiomorphic nuclei. (See Figures 1, 2 and 3.) This was repeated in March, 1984. The patient was undergoing generalized debilitation during this interval. This included prolonged fevers to 103°F, weight loss, intermittent adenopathy, and skin



FIGURE 1. Large ulcer of left lateral lower leg, which spontaneously healed.



FIGURE 2. Margin of ulcer left side showing nodularity of infiltrate (100X).

nodules as before. All nodules ulcerated and still healed spontaneously.

In the next three years, she had admissions primarily for the control of diabetes. In early 1987, she was admitted to Richland Memorial Hospital for radiation to a large chest ulcer (approximately 10.0 cm) and a node in the left axilla that had not healed. She had also been tried on interferon without success. She was admitted to

* Department of Pathology, Kershaw County Memorial Hospital, 1315 Roberts Street, Camden, S.C. 29020-3798.

LYMPHOMATOID PAPULOSIS

Kershaw County Memorial Hospital for the final time on February 25, 1988. A pleural effusion of the left lung was thought to be secondary to the radiation. This was removed by thoracentesis. The patient's condition worsened and she expired approximately two days later on March 3, 1988.

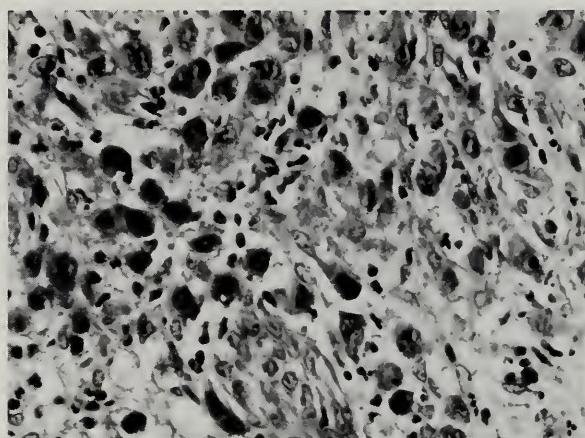


FIGURE 3. High power view showing large numbers of abnormal lymphoreticular cells with hyperchromatic pleiomorphic nuclei (X400).

DISCUSSION

Most original papers conclude that this disease is a recurrent chronic skin eruption, which remains benign in its course. It is characterized as a recurrent ulcerating skin condition with an atypical lymphoreticular infiltrate, which heals spontaneously. This is summarized in well-documented review articles by Dr. Macaulay, Drs. Black and Jones, and Drs. Valentino and Helwig.^{2, 3, 4}

In rare instances, it has been noted that the patient develops reticulum cell lymphoma and expires.³

This case presents a benign course for approximately ten years and then in the last two years a persistence of a large ulcer of the sternal skin and axillary lymphadenopathy. Local radiation was performed and then death followed much the same as a case of Doctor Black's.³

The most intriguing questions raised are at what point did the patient develop mycosis

fungoides? Did the patient's immune system finally succumb to persistent stimulus of the histiocytic cells? These questions are yet to be answered.

From a histological perspective, one observes the same abnormal lymphoreticular cell in the dermis in the original biopsy in 1974, in subsequent biopsies in 1983, and shortly before her death in 1987. This raises the additional question as to whether this disease should have another name from its inception to include the clinical course of mostly being benign but with a potential malignant outcome.

The abnormal cell has the potential to develop into mycosis fungoides as in our case, large cell anaplastic lymphoma, or Hodgkin's disease.⁵ It is impossible to tell by looking at the slides which ulcer is malignant because the atypical cell is present from the origin, albeit in the malignant phase it is present in a more anaplastic form and in larger numbers. It appears to be a disease controlled by host response. Therefore until the malignant stage develops, the most that can be said and should be said is "the diagnosis is lymphomatoid papulosis—mostly benign but potentially malignant." □

ACKNOWLEDGMENTS

The author wishes to gratefully acknowledge the review of the case and comments by Dr. Bernard Ackerman, Dr. Donald Leonard, Dr. John Maize, Dr. Richard Reed, Dr. h.c.o. Braun-Falco, Dr. G. Burg, Dr. Martin M. Black, Dr. Loren Golitz, and Dr. Jim Shaw. Also to be thanked is my personal secretary, Mrs. Arlene Jones, who typed the manuscript.

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SCMA NEWSLETTER

MARCH 1989

REGISTER TODAY FOR THE 141ST SCMA ANNUAL MEETING

Register early for the 141st Annual Meeting of the SCMA to be held April 26 through April 30 at the Omni Hotel in Charleston. We have an exciting program scheduled for you including a workshop on the RBRVS to be conducted by James F. Rodgers, Ph.D., Director of The Center of Health Policy Research at the AMA; a dynamic program on sports medicine with guest speaker John A. Bergfeld, MD, team physician to the Cleveland Browns Football Club, Cleveland Cavaliers Basketball Team and orthopaedic consultant to the Cleveland Indians Baseball Club; and a workshop on Medical Ethics to be conducted by Nancy Dickey, MD, of the AMA Council on Ethical and Judicial Affairs. Registration forms and program schedules have been mailed recently, and we encourage you to make your reservations promptly. For additional information, please contact Debbie Shealy of the SCMA staff.

HIGHLIGHTS FROM FEBRUARY SCMA EXECUTIVE COMMITTEE MEETING

At its meeting on February 16, the SCMA's Executive Committee decided to request that the Medical Ethics Committee prepare an opinion on the ethical considerations involved in referrals for second opinions.

Dr. Rowland, President, reported on the Governor's letter of appreciation for the SCMA's Personal Care program. The SCMA's involvement in DHEC's Minority Health Care Task Force and DHEC's Physician Award for volunteer services were noted.

Dr. Hawk, Chairman of the Board, reported that he had received favorable comments regarding the SCMA's Leadership Conference. The Executive Committee decided to continue to hold the Leadership Conference in January.

The Executive Committee was updated on the plans for a mobile health van by the Governor's Office. This van will provide health screening and education beginning at worksites in Beaufort, Jasper, Colleton and Hampton counties. The SCMA has emphasized the need for physician follow-up of abnormal test results.

Continued concern with the wording of Medicare Explanation of Medical Benefit (EOMB) forms was discussed. Since this wording is a result of national policy, the SCMA will write the AMA's Council on Medical Service to request further negotiations with HCFA on revisions of this beneficiary form.

HEALTH EDUCATION VAN UNVEILED

The SCMA/SCMAA/SCIMER and Department of Education's Health Education Van was unveiled to the general public at a news conference late last month. The van concept has been well-received by the media and the general public as well as by the South Carolina public school system. The van and exhibits will be on display at the SCMA's Annual Meeting in late April. The auxiliary expresses their appreciation for your support and financial contributions in helping to make the project a success.

MEDICARE UPDATE

Effective for services provided on or after April 1, 1989, claims (from independent labs, radiologists, pathologists, or any other service rendered as a result of an order or referral from another physician) must include both the name and provider number of the ordering or referring physician. Please refer to the March 1, 1989 Blue Cross/Blue Shield information or call your Medicare provider representative.

MEDICAID UPDATE

Certified Nurse Midwife Coverage

Medicaid will enroll and make payment to certified nurse midwives (CNM's) for services they are legally authorized to furnish by state law. A Medicaid bulletin with specific billing instructions is being sent to all physicians.

Coverage For Breast Reconstructive Surgery

Effective with dates of service on March 1, 1989, the Medicaid program will consider the expenditure of funds for reconstructive breast surgery following a mastectomy due to carcinoma of the breast. All requests for breast reconstruction must be prior authorized by Medicaid. Approval will be based on specific criteria for medical necessity. For more detailed information, please contact HHSFC, Department of Physician Services, at 253-6134.

Pediatric Coverage

HHSFC has developed an incentive package that includes an enhanced fee for routine newborn care, a home visit for each newborn, increased EPSDT rates with increased efforts for recruitment of more private physicians, and promotion of additional sick child examinations for children under the age of 21. The increased reimbursement rates, with the additional service components, will be effective March 1, 1989, as follows:

<u>Code</u>	<u>Description</u>	<u>Fee</u>
S9650	Physician's referral to WIC, first EPSDT appointment and eligibility referral to DSS, and referral to appropriate provider for home visit within seven days of hospital discharge.	\$15.00
S1503 or S1504	Completion of High Risk Channeling Risk Assessment Form 204.	Increased from \$15.00 to \$20.00
90757	Home visits for infant care and assessment. Home visit will be performed by DHEC district office. Approved physicians and hospitals may also participate; for information, contact your program manager.	\$65.00
(Use of 1724 Screening Forms)	Increased rate for all enrolled EPSDT screeners, (including physicians, clinics and health departments) for five EPSDT screenings in the first year.	Increased from \$35.00 to \$45.00
90020	Sick baby follow up visit.	\$50.00
S9660	NICU baby follow up visit for new patient examination.	\$80.00
Appropriate level of office visit CPT-4 Code	Unlimited follow up office visit for treatment of problems found through EPSDT screening.	-

Effective April 1, 1989, Medicaid benefits will be available to women and infants (up to age 1) whose family income level is below 125 percent of the federal poverty level. Additionally, children up to age six (born after September 30, 1983) whose family income level is below 100% poverty will be available for Medicaid benefits.

The expansion of Medicaid benefits to these groups is intended to increase their access to health care in the developmental years and to increase use of prenatal care.

PRO UPDATE

Carolina Medical Review, the name in South Carolina for our new PRO, Medical Review of North Carolina, has mailed a February 27 memorandum to all practicing S.C. physicians. This correspondence provides information on Medicare and Medicaid preadmission review requirements. These requirements were effective for procedures scheduled March 1 and thereafter. An

important new federal requirement is that preadmission review must occur for selected procedures if they are performed on an outpatient basis or in ambulatory surgery center in addition to inpatient hospital admissions. If you have not received this PRO memorandum or the related review criteria, contact Carolina Medical Review.

The phone number in Columbia for Carolina Medical Review is 731-8225. All preadmission review calls should be made by calling the Raleigh office 1-800-331-4690.

Blue Cross/Blue Shield has clarified that physician claims are not required to include the PRO preauthorization number. A Medicare advisory will be forthcoming.

CHANGES IN WORKMAN'S COMP

As a result of a study the SCMA had Ernst and Whinney conduct, the Industrial Commission has increased conversion factors for Workman's Compensation. New conversion factors effective April 1, 1989, are as follows:

<u>Service Type</u>	<u>New Conversion Factor</u>
Medical and Surgical	16.0
Radiology - Total	15.0
Radiology - Professional	3.5
Anesthesiological	20.0
Nurse Anesthetist	16.0

Under the Worker's Compensation medical fee schedule in South Carolina, relative value units of certain procedures were outdated and needed to be adjusted to reflect common practice. The SCMA Occupational Medicine Committee has been instrumental in assisting the Industrial Commission. Compared to local benefit plans in particular, as generally supported by the existing workers' compensation medical fee schedules in nearby states, the South Carolina schedule needed to be adjusted to a level which would provide adequate remuneration while maintaining the availability of quality medical care.

CHANGES IN IRS CODE

It is important that you evaluate your employee benefits in regards to the recently revised Section 89 of the Internal Revenue Code. This section deals specifically with non-discrimination in health and welfare benefits.

Under the revised section, all employers, regardless of business type or number of employees, must comply with Section 89 to avoid severe penalties. Complex testing and qualification requirements must be met. The impact of the requirements of Section 89 can be SUBSTANTIAL. All employer sponsored health benefits must be tested, such as medical, HMO, dental, drug, life, AD&D, and

Section 125 flexible benefits plans. Any benefits under Section 132, such as company parking, employee discounts, etc. also fall under Section 89.

HCFA ADMINISTRATOR PROMOTED

William L. Roper, MD, HCFA Administrator, has been promoted under the Bush Administration to Deputy Assistant for Economic and Domestic Policy. In this role he will serve as President Bush's advisor on health policy matters. Dr. Roper's successor at HCFA remains to be named at the time "SCMA Newsletter" went to print.

NEW CHAMPUS TELEPHONE NUMBERS

There are two CHAMPUS Provider Reps for South Carolina. Fran Herlong covers the Charleston, Beaufort and Hilton Head areas (telephone: 912/263-5145); the rest of South Carolina is covered by Marilyn Mims (telephone: 919/847-5824).

AIDS UPDATE

The Bureau of Preventive Health Services at DHEC has developed an HIV/AIDS Laboratory Evaluation Protocol to facilitate HIV/AIDS staging on the spectrum of progression from infection to disease as well as management of newly diagnosed HIV-positive DHEC clients. For a copy of the protocol or additional information, please call Robert T. Ball, Jr., MD, at 737-4040.

HIV BLOOD TEST COUNSELING GUIDELINES AVAILABLE

AMA physician guidelines on HIV blood test counseling are available to interested physicians. For a copy, please refer to the December 9, 1988, issue of American Medical News or contact Desiree Goodwin at (312) 645-4526.

SC HANDICAPPED SERVICES INFORMATION SYSTEMS

The SC Handicapped Services Information System (SCHSIS) provides information to persons of all ages with disabilities. Included in their services is an Elderly Assistance Line, a referral system for services available to persons age 55 and over. Also included is a statewide Central Directory for the 0 to 3-year-old population with special needs and their families.

Physicians who provide services to both populations who need information for their patients, and/or physicians who wish to be listed in the Central Directory for either or both population groups, should call 1-800-922-1107 (in Columbia 777-5732).

CHOLESTEROL CME VIDEO TAPE AVAILABLE

The National Cholesterol Education Program (NCEP) of the National Heart, Lung, and Blood Institute is pleased to announce the immediate availability of a continuing medical education,

independent study, monograph on cholesterol. It is titled Cholesterol: Current Concepts for Clinicians. Copies are available free of charge, on request, to individual physicians and to CME directors who are conducting CME courses for local physician groups. For more information, please contact National Cholesterol Education Program, Box CME, 4733 Bethesda Ave, Suite 530, Bethesda, MD, 20814. Telephone number is (301)951-3260.

RESEARCH GRANTS AND FELLOWSHIPS AVAILABLE

The American Heart Association is accepting applications for research grants and fellowships in the following areas:

MEDICAL STUDENT RESEARCH FELLOWSHIP

Institutional award to encourage full-time research training for one or more years prior to graduation.

CLINICIAN SCIENTIST AWARD

To encourage promising clinically trained physicians to undertake careers in investigative science.

ESTABLISHED INVESTIGATOR

To assist promising physicians and scientists to develop independent research careers in academic medicine and biology.

GRANT-IN-AID

Research project broadly related to cardiovascular function and diseases, including stroke, or related fundamental problems. Support available for all basic disciplines and for cardiovascular epidemiological and clinical investigations.

For additional information, please contact Jan Samuel at 738-9540 in Columbia.

TELECONFERENCE TO BE HELD

The AMA will host a teleconference on March 23 on RVS: What It Means for the Practice of Medicine. The program will be aired by the Hospital Satellite Network from 2:30-4:00 p.m. Call 1-800-537-5393 for additional information. Cassettes of the program may be ordered from the AMA by calling 1-312-645-5102.

CONFERENCES TO BE HELD

The AMA will sponsor an International HIV Conference on Counseling, Testing and Early Care on June 3 & 4 at the Bonaventure Hilton International in Montreal, Quebec, Canada. For additional information, please contact John H. Henning, Ph.D., Director of AMA's HIV/AIDS Office, at (312) 645-4566.

PROJECT READINESS II: SOME RESULTS FROM A PHYSICAL FITNESS AND HEALTH ENHANCEMENT PROGRAM FOR LAW ENFORCEMENT PERSONNEL*

STANLEY J. LEPROTTI, M.ED.

WARREN K. GIESE, PH.D.

JOHN H. SPURGEON, PH.D.

JAMES A. KEITH, PH.D.**

STANLEY S. JUK, JR., M.D.

CLARENCE G. ROBINSON, M.D.

SANDOR MOLNAR, PH.D.***

J. DAVID BRANCH, M.S.

Since the early 1970s, crime, citizen safety, recruitment, funding, retention of personnel, and other police related matters have been closely scrutinized by law enforcement agencies, the media, and government committees. Somewhat belatedly, it was recognized that among the numerous facets of law enforcement none was more important than the health of the law enforcement officer. Besides the primary value of officer health, it was recognized that the dollar costs of disability, early retirement and medical care placed acute financial strains on local taxing districts.

THE PROBLEM IDENTIFIED

Police work involves occupational extremes: (1) sedentary activities much of the time; and (2) unpredictable violent encounters on occasion. Coupled with this vacillating quiet-violent stress pattern are frequent "rotating shifts," requiring irregular eating and sleeping patterns, often inadequate physical exercise, sometimes domestic upheaval, and other job-related conditions that

contribute to medical and social problems. Among law enforcement personnel, heart disease, high blood pressure, gastro-intestinal disorder, kidney disease, low back pain, and a variety of nervous disorders are seen more often than in the general population.

A NIOSH¹ study found that at any given time, from 10 percent to 37 percent of the officers surveyed had serious marital, family, alcohol and drug problems. Compared with the population at large, alcoholism, suicide and divorce are each higher among law enforcement personnel. Effective law enforcement requires more than minimal levels of physical fitness and dynamic health; too often these requirements have not been recognized. Exemplary of positive actions are studies in Los Angeles, New York City, Salina, Kansas, and Columbia, South Carolina.^{2, 3}

PROJECT READINESS II

The needs described above were recognized by law enforcement leaders in South Carolina. During the fall, 1979, in cooperation with the University of South Carolina, a pilot program was designed to improve the health status and physical fitness of law enforcement personnel. The program was designated Project Readiness. Components of the program were physical training, nutrition education, weight reduction, and stress management. This program was the most comprehensive attempt to date focused on improving the physical and health fitness of law enforcement personnel and was sufficiently successful that

* From the Department of Physical Education (Mr. LeProtti, Dr. Spurgeon and Dr. Giese) and the School of Public Health (Dr. Keith), University of South Carolina, Columbia; Columbia Cardiology Associates, P.A., Columbia, S. C. (Dr. Juk); the New York City Police Department, New York, N. Y. (Dr. Robinson); and the Department of Physical Education, Furman University, Greenville, S. C. (Dr. Molnar and Mr. Branch).

** Address correspondence to Dr. Keith at the School of Public Health, University of South Carolina, Columbia, S. C. 29208.

*** Deceased

PROJECT READINESS II

Project Readiness was organized and initiated during the fall of 1980.

SUBJECT AND DATA COLLECTION

The subjects were 178 law enforcement officers at city, county, state and federal levels (Federal Bureau of Investigation, United States Secret Service, United States Marshals, Bureau of Alcohol, Tobacco, and Firearms, South Carolina Law Enforcement Division, South Carolina Highway Patrol, South Carolina Wildlife and Marine Resources Department, Richland and Lexington County Sheriff's Departments, and the Columbia, Cayce and West Columbia, South Carolina city police departments) ranging in age from 21 years to 66 years, with the average near 35 years. On each subject, demographic, nutritional, personality, motivational, somatic and physiological data were collected. Specifically, each participant completed demographic and diet recall questionnaires, responded to a psychological profile, and was tested for resting blood pressure, resting pulse rate, pulmonary function, intraocular eye pressure, 12-lead electrocardiogram, blood chemistry, 26-item panel, ergometer stress test and measures of body size, form and composition.

After completing the above, subjects began attending physical workouts held at the Blatt Physical Education Center, University of South Carolina. These workouts were under the direction of Stan LeProtti and his staff (a complete description of the workout regimen is available upon request).

SHORTCOMINGS OF PHYSICAL ACTIVITY DATA

Attendance at the workout sessions on a voluntary basis resulted in 10 percent of the men reporting for 30 to 60 percent of the sessions; 33 percent reported between 20 percent and 29 percent of the time and 57 percent were present for less than 20 percent of the sessions. This level of response underscores the ineffectiveness of a voluntary program and supports the notion that maximal results can be obtained only when a program is mandatory. Reasons for poor attendance were cited as rotating duty shifts, unforeseen emergencies and changes in duty assignment. Despite reduced attendance, some beneficial results of the physical activity were found. Physical activity was complemented with lectures on nutrition and when necessary, counseling on weight reduction.

Sixty-two of the participants were available for post-testing.

DEMOGRAPHIC FINDINGS

Response to demographic questions was incomplete; but for those responding about half were native South Carolinians, and the remaining officers were native to 15 other states. Nearly 90 percent of the officers were white, slightly more than half were married, about one-third were single and the others were divorced.

About half the respondents graduated from high schools having small (less than 100) graduating classes and half from larger schools.

More than half of the respondents were first or only children; of those reporting children, female children were more prevalent than male children.

Nearly two-thirds of respondents either had never smoked or had quit smoking.

NUTRITIONAL FINDINGS

A 24-hour dietary recall inventory was administered to a subsample ($N=42$) of the law enforcement group.

In general, dietary habits were not good. Missed meals was the rule rather than the exception. Fewer than one-third of the respondents had breakfast each morning, nearly two-thirds had a daily noon meal; about 90 percent had an evening meal which included more than half their daily caloric intake. No real patterns exist for the consumption of meat products (red meats and chicken were preferred) breads, milk or milk products, fruits or vegetables, except that large quantities of "fast foods" or "snacks," i.e. hamburgers, french fries, cookies, milkshakes, milk, coffee, tea, and soft drinks are listed as being consumed "between meals." Average caloric intake was near 2,800 Kcal which is reasonably close to the recommendations made by the National Academy of Sciences.⁴

PHYSIOLOGICAL FINDINGS

All clinical testing was conducted in the laboratories of the Department of Physical Education between the hours of 8:00 and 5:00 p.m.

The following tests were taken with the subjects in a sitting position: resting heart rate (RHR), resting blood pressure (RSP/RDP), forced vital capacity (FVC), and forced expiratory volume (FEV 1.0). Following eight hours of fasting, a 12

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lead resting electrocardiogram (ECG) was obtained with the subjects in a supine position. Medical interpretation of the ECG test was followed by a bicycle ergometer graded exercise test (BEGXT), during which the heart rate was monitored every few seconds. Methodology and measurement reliability are discussed elsewhere.^{5, 6, 7, 8}

Pre-test RHR values ranged from 37-100 beats/min. ($\bar{X} + 66.5 \pm -10.7$). Pre-test resting blood pressure values ranged from 94-170 mm Hg ($\bar{X} = 124.2 \pm -13.1$) and 10-110 mm Hg ($\bar{X} = 79.5 \pm -11.0$) for RSP and RDP respectively. As these data indicate, several subjects presented values above the generally accepted hypertension criteria of 150 mm Hg and/or 90 mm Hg. Pre-test FVC ($\bar{X} = 4.8$ liters ± -0.8) and FEV 1.0 ($\bar{X} = 3.7$ liters ± -0.7) were normally distributed, with ranges of 2.8-6.8 liters and 1.7-5.9 liters respectively.

The mean post-test RHR was 63.5 beats/min (± -11.9), with a range of 35-106 beats/min ($N=60$). Post-test RSP and RDP means were 123.8 mm Hg (± -13.4) and 79.5 mm Hg (± -8.2). Post-test RSP ranged from 106-180 mm Hg, with an RDP range of 68-110 mm Hg. Post-test FVC and FEV 1.0 means were 4.8 liters (± -0.9 , range 2.5-7.0) and 3.7 liters (± -0.8 , range 1.6-5.7). The pre-test and post-test mean differences in RHR, RSP and FVC possibly reflect a modest training effect. No change was observed in pre-test and post-test RDP and FEV 1.0 means.

The heart rate response of this population to incremental cardiovascular exercise compares favorably with previously published reports.⁹ Heart rate will increase linearly in response to incremental work; however, the slope of the line representing the heart rate response will vary as a function of cardiovascular fitness. Comparison of pre-test and post-test heart rate response in the BEGXT (25 Watt initial workload, increasing 25 Watts/minute) reflects a lower slope of post-test heart rate progression; a generally accepted indication of increased cardiovascular fitness.

Means and variability statistics for 28 blood chemistry variables are presented in Table 1. All means were within the normal range of limits as defined by Biomedical Reference Laboratories, Inc., Burlington, North Carolina. Large deviations from the mean were observed for triglycerides, VLDL-cholesterol, SGOT, CPK and LDH. These findings are similar to Project Readiness I

data. Empirical comparison of data of Project Readiness I and II show a modest increase in mean HDL-cholesterol, a possible reflection of increased exercise and nutritional awareness.

SOMATIC FINDINGS

Data were obtained for two measures of body size (height and weight) and a measure of body composition (percent body weight fat). The direct measures were taken with subjects wearing shorts only. Methodology and measurement reliability are discussed elsewhere.^{11, 12}

Means for standing height, body weight and body weight/fat were 176.5 cm, 80.1 Kg and 19.8 percent respectively. The means for standing height and body weight were higher by .7 cm and .2 Kg than for similar means obtained from an American survey made during 1971-74 on 2,234 United States men between ages 25 and 54 years. For each comparison, it is not tenable at $P > .05$ to infer population differences.

In spite of irregular workout sessions, post-test body fat [fat (% body weight)] decreased by 3.2 percent ($P < .05$).

About half the group appears to be overweight. deVries has suggested that when 15 percent body weight/fat has been reached, weight reduction is in order.¹⁴

PERSONALITY TEST PROFILES

A 10 bi-polar personality factor profile resulted from the administration of the *Motivational Analysis Test*.¹⁵ This test gives an individual's interests, drives, and the strength of his sentiment and value systems. Five of the measures are basic drives-ergs and five are sentiment structures. The five ergs are mating, assertiveness, fear, narcissism-comfort, and pugnacity-sadism. The five sentiment measures are self-concept, superego, career, sweetheart-spouse, and home-parental. Reliability measures for the ten dynamic factors range from .33 to .71 while validity ranges from .53 to .76 respectively.

The profile of ergs and sentiments is reported in total motivation scores, converted to stens, and averaged for the group. Averaged scores falling between sten $4\frac{1}{2}$ and $6\frac{1}{2}$ are considered to be within the "normal" range and unremarkable from the normative group. Those falling outside of this range are considered to be descriptive of

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TABLE 1
Means and Standard Deviations for Blood Composition
Measurements (N=74)

Variable Name	Mean	Standard Deviation	Minimum	Maximum
LDL Cholesterol	129.36 ¹	29.57	56.0	234.0
VLDL Cholesterol	28.54 ¹	15.10	2.0	75.0
HDL Cholesterol	47.55 ¹	14.22	24.0	92.0
Total Cholesterol	205.91 ¹	32.48	116.0	302.0
LDL/HDL Ratio	2.93	1.19	0.9	6.8
Triglycerides	144.73 ¹	73.32	12.0	376.0
CHD Risk	1.13	0.81	0.3	5.25
BUN	14.65 ¹	3.84	8.0	27.0
Creatinine	1.19 ¹	0.21	0.8	1.8
BUN/Creatinine Ratio	12.46	3.14	6.9	23.3
Uric Acid	6.53 ¹	1.22	4.2	9.1
Calcium	9.74	0.39	8.9	10.6
Phosphorous	3.46 ¹	0.49	1.9	4.5
Glucose	99.31 ¹	17.62	65.0	162.0
Sodium	140.20 ³	1.74	136.0	145.0
Potassium	4.43 ³	0.45	3.3	5.4
Chloride	99.64 ³	3.09	88.0	106.0
CO ₂	29.61 ³	3.35	15.0	35.0
Albumin	4.79 ⁴	0.32	3.9	5.6
Globulin	2.63 ⁴	0.31	2.1	3.4
Total Protein	7.43 ⁴	0.41	6.6	8.5
Albumin/Globulin Ratio	1.84	0.26	1.1	2.5
Total Bilirubin	.76 ¹	0.31	0.3	2.2
SGOT	32.65 ²	36.65	14.0	244.0
Alkaline Phosphatase	76.43 ²	22.69	39.0	149.0
Lactic Dehydrogenase	182.73 ²	32.05	125.0	362.0
Osmolality	290.28 ⁵	3.64	281.0	299.0
CPK*	165.58 ²	83.51	71.0	432.0

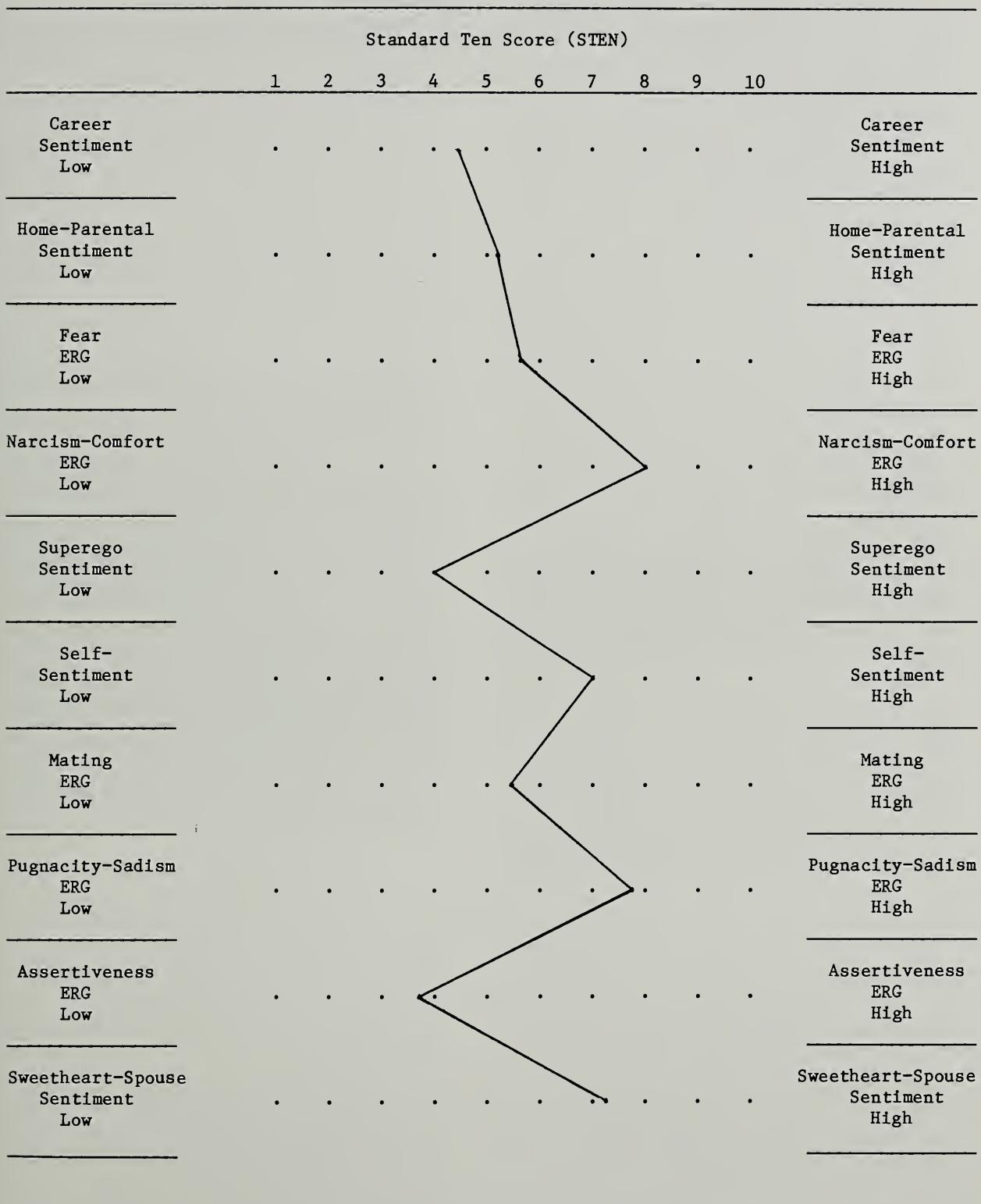
*N=73

Units of Measurements

1= mg.dl⁻¹ 2=mIU.ml⁻¹ 3=mEq.L⁻¹ 4=g.dl⁻¹ 5=mosm.⁻¹

PROJECT READINESS II

Figure 1
Motivational Analysis Test Profile



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how the profile group varies from the normative—hence, the characteristics which are unique to this homogenous group.

The profile for this group of subjects (Figure I) shows variation on six of the 10 ergs and sentiments. In the profiled group of subjects, the narcissism-comfort erg is substantially higher than normal and indicates that this group is directed to sensual indulgence (food, smoking), to ease, self-love, and avoidance of onerous duties. A second characteristic which varies from the norm is low superego sentiment which is the strength of development of conscience. Self-sentiment was higher than normal for this group and indicates a stronger level of concern about the self-concept, social repute, and more remote rewards. The pugnacity-sadism erg was higher than normal and measures the strength of destructive-hostile impulses. The assertiveness erg of the strength of the drive to self-assertion, mastery and achievement for the group was lower than for the normative group and the sweetheart-spouse or strength of attachment to spouse or sweetheart was higher than normal.

These results clearly indicate that differences exist between this group and the normative population. Such differences often serve to describe groups of people who are homogenous in certain aspects, i.e., occupation, sex, age or physical condition.

PROJECT ASSESSMENT

By far the most valuable aspect of Project Readiness II was the medically supervised clinical screening. A number of health problems were discovered and appropriate follow-up taken. So successful was the clinical screening program that

state funding was established to implement Project Readiness III which will serve five state agencies involving approximately 1,200 State Police. □

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Editorials

CIPROFLOXACIN: PANACEA OR BLUNDER DRUG?

While attending a meeting in Europe some years ago, I kept encountering names of antimicrobial compounds of which I had never heard. Finally, I summoned the courage to ask an Italian, "What's that?" "It's one of the DNA gyrase inhibitors," he replied. I hid my ignorance: "Why, of course." Actually, I had never heard of DNA gyrase—let alone its inhibitors! After extensive use in other parts of the world, the fluoroquinolones have now fully arrived in the United States as norfloxacin (Noroxin) and ciprofloxacin (Cipro). More will follow. The timely paper by Dunbar and colleagues in this issue of *The Journal* attests to the current wide interest in the role of ciprofloxacin in medical practice.

To the best of my knowledge, the study by Dunbar and colleagues represents the first statewide multi-practice collaborative drug trial ever reported in *The Journal*. It illustrates the potential for office practitioners to generate data relevant to day-to-day medical practice. However, the study should be interpreted cautiously. Microbiologic documentation of infection was obtained in only 14 of the 113 patients treated. More importantly, there was no comparison group. A comparison of ciprofloxacin with the drugs the physicians would otherwise have chosen had they not been participating in this industry-sponsored study would have been of interest. More than one-third of the infections treated were community-acquired lower respiratory tract infections, for which ciprofloxacin is not considered to be a drug of choice. Despite these caveats, the study confirms the remarkable efficacy and safety of this new class of antimicrobials. What, then, is the proper place of ciprofloxacin in our armamentarium?

A current advertisement for ciprofloxacin touts its ability to "bring the power of parenterals to office practice." This power applies mainly to aerobic gram-negative rods, including *Pseudomonas aeruginosa*. With the addition of ciprofloxacin—and also of third-generation cephalosporins that can be administered orally—we can

anticipate a definite trend toward oral antibiotic therapy for infections that previously would have required parenteral agents. For most of the other pathogens encountered in office practice, we have equally- or more-effective older drugs suitable for oral administration. It is not at all clear that ciprofloxacin should replace such old stand-bys for oral therapy as erythromycin, doxycycline, ampicillin, trimethoprim/sulfamethoxazole (Bactrim; Septra), metronidazole (Flagyl), and amoxicillin/clavulanate (Augmentin). Hence, a brief review of the pharmacology and spectrum of activity of this new agent seems appropriate.

Like the third-generation cephalosporins, the synthetic fluoroquinolones are in essence "designer drugs"—in this case, patterned after nalidixic acid (NegGram). Inhibition of bacterial DNA gyrase makes these agents bactericidal not only against dividing cells but also against resting cells—a remarkable feat. At concentrations of less than one mcg/ml, ciprofloxacin is active against most of the Enterobacteriaceae (the common aerobic gram-negative rods), *Haemophilus*, *Neisseria*, *Pseudomonas*, and *Acinetobacter* species, and most staphylococci. Streptococci—including the pneumococcus—are, in general, not highly susceptible.¹ That obligate anaerobes are usually resistant to the fluoroquinolones is not altogether undesirable, since there is much to be said for leaving the anaerobic intestinal flora intact in the course of non-intraperitoneal infections. Ciprofloxacin is also active against most mycobacteria, including *M. tuberculosis*,² and against *Legionella* species and various rickettsia. There is even more good news. Emergence of resistance to the fluoroquinolones, which occurs by single-step gene mutation, has been uncommon. Resistance has occurred mainly after treatment of *Pseudomonas aeruginosa* infections in patients with cystic fibrosis³ or treatment of methicillin-resistant *S. aureus* infections.⁴ In short, ciprofloxacin seems almost too good to be true. What is the downside?

First and perhaps foremost are its contraindica-

tions. An effect on the growing cartilage of weight-bearing joints makes it contraindicated in children and in pregnant women. Second, one must keep in mind certain clinically-important drug interactions. Inhibition of the metabolism of theophylline leading to increased theophylline blood levels has received the most publicity, but ciprofloxacin also impairs the metabolism of caffeine and antipyrine. Antipyrine is considered to be a marker of broad substrate specificity, and hence it would seem best to avoid when possible the combined use of ciprofloxacin with drugs that are metabolized by the liver and have low therapeutic indices—such as cyclosporin, phenytoin (Dilantin), and warfarin (Coumadin). Elderly patients and patients with liver disease are especially vulnerable to such drug interactions.⁵ Finally, achievable serum concentrations are relatively low, usually ranging between 1.5 and 2.9 mcg/ml after a single 500 mg orally-administered dose.⁶ Hence, ciprofloxacin—at least when given orally—does not afford the extremely high kill ratios generally considered to be necessary for therapy of such infections as endocarditis, meningitis, or sepsis in neutropenic cancer patients. Still, it is apparent that ciprofloxacin should be both effective and safe for the majority of infections in adult patients encountered in office practice. When, then, should it be used?

Let us consider the alternatives. For respiratory tract infections, one should remember that the activity of fluoroquinolones against *S. pneumoniae* (the pneumococcus) is far less than that of other agents. Hence, ciprofloxacin should not be a first choice for therapy of community-acquired pneumonia.⁷ For non-allergic patients, the penicillin derivatives remain the preferred agents. For urinary tract infections, we already possess a plethora of effective agents including the sulfonamides and trimethoprim/sulfamethoxazole (Bactrim/Septra). For soft tissue infections likely to involve staphylococci, including bite wounds, amoxicillin/clavulanic acid (Augmentin) would seem preferable. For heavily-infected ulcerations (such as the diabetic foot or decubiti), the combination of either of the aforementioned agents with metronidazole (Flagyl) would seem a better choice. For these and indeed for most community-acquired infections, ciprofloxacin has not

been shown to be superior to older agents.

Still, ciprofloxacin seems to have certain unique niches. These include the following:

- (1) *Pseudomonas aeruginosa* infections outside the urinary tract, for which ciprofloxacin is the first effective orally-administered agent. Considerable experience documents the efficacy of ciprofloxacin for *Pseudomonas* bone and joint infections. Its contraindications in childhood is unfortunate especially because of its efficacy in nail puncture wound-associated *Pseudomonas* osteomyelitis.
- (2) Infectious diarrheas. Ciprofloxacin has remarkable activity against nearly all of the classic enteric pathogens, including *Salmonella typhi*.
- (3) Post-hospitalization therapy of infections acquired in the hospital and due to the more difficult-to-treat gram-negative rods, such as *Klebsiella*, *Enterobacter*, and *Serratia* species.
- (4) Infections due to unusual pathogens, such as the non-tuberculous mycobacteria. Here, however, therapy must be individualized.
- (5) Antibiotic-resistant strains of *Neisseria gonorrhoeae*, for which ciprofloxacin is one of the few promising drugs.⁸

So great is the activity of ciprofloxacin, however, that it seems inevitable that this list of specific indications will grow.

Ciprofloxacin, in summary, is a welcome addition to our armamentarium which can spare many patients the need for parenteral antibiotic therapy. Enthusiasm seems warranted. Still, it seems prudent in most situations to ask what alternative agents might be equally effective and less costly. And, of course, it need hardly be emphasized that the broad-spectrum of activity of ciprofloxacin does not replace the need for accurate diagnosis whenever possible. The paper by Dunbar and colleagues reminds us that there is a definite place for clinical trials of drugs after FDA approval and marketing.⁹ Perhaps this paper will stimulate further multi-practice trials in South Carolina. This is the kind of activity that both our association and also the specialty and subspecialty organizations should encourage.

—CSB

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ON THE COVER: DOCTORS' DAY

March 30 is Doctors' Day. This day which is set aside to honor our medical doctors was first celebrated by the Auxiliary to the Barrow County (Georgia) Medical Society in 1933. Mrs. Eudora Brown Almond originated the idea, inspired in part by her fond memories of the family doctor of her childhood and in part by her husband, Dr. Charles B. Almond, and his "dedication, charity, courage, love and sacrifices in his daily ministry of healing humanity's ills." March 30, the day that in 1842, Dr. Crawford Long, another Georgia physician, first used ether as an anesthetic, was selected as the appropriate day. The Women's Auxiliary to the Southern Medical Association adopted the celebration in 1935.

The lovely illuminated poem on this month's cover was not composed for Doctors' Day but somehow seems appropriate. It was written and illuminated by Sister Carmel of Saint Francis Xavier Infirmary some years ago to honor Dr. Daniel Lawrence Maguire, long time beloved Chief of Staff of that institution.

Dr. Maguire was born in Charleston in 1882. He graduated from Bennett School, Charleston High, and the College of Charleston, each time with honors. In 1907 he received his M.D. from the Medical College of the State of South Carolina where he later served as Clinical Professor of Surgery. Dr. Maguire was prominent in civic and church activities as well as in medical concerns. He married Ella Frances Carter in 1914. Their union produced three sons and one daughter, all of whom entered the medical profession. Dr. Maguire, "a true gentleman, an eminent doctor, and a dear friend," died on October 6, 1951.

This cover is dedicated to Dr. Maguire and to all the dedicated physicians in the state who serve selflessly in their chosen profession.

—BETTY NEWSOM
The Waring Historical Library

Cover picture courtesy of Carter P. Maguire, M.D.

OVER A CENTURY AGO, a thousand visionary physicians across the nation bestowed a commemorative stone carving to the Washington Monument. This patriotic display symbolized their unrelenting devotion to a new republic founded on freedoms—including the freedom to practice medicine for the best possible health of all its people. *Today your help is needed to restore this symbol of our profession.*

Because the commemorative stone has suffered from severe erosion and defacement, the American Medical Association is launching a campaign to raise money from physicians to restore this symbol of medicine for the National Park Service. Every contribution made to this effort will serve as a statement of each physician's personal affirmation and commitment to health and medicine in America.

Please take part in rededicating the commemorative stone as a shining example of the strength of medicine in a free and strong society. Contributors who donate \$100 or more will receive a memorial replica of the carving as a token of appreciation. Send your tax deductible contribution for this timeless symbol today. Thank you.

Yes, I want to affirm my commitment to health and medicine in America.

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All donations are tax deductible. All contributions will be publicly recognized in an unveiling ceremony for the new stone when it is fully restored.

Thank you for your contribution.





THE JOURNAL

OF THE SOUTH CAROLINA MEDICAL ASSOCIATION

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ONE HUNDRED FORTY-FIRST ANNUAL MEETING

THE OMNI HOTEL AT CHARLESTON PLACE
CHARLESTON, SOUTH CAROLINA
APRIL 26-APRIL 30, 1989

The 141st Annual Meeting of the South Carolina Medical Association celebrates nine consecutive years in Charleston and the third year at the Omni Hotel at Charleston Place.

Details of the meeting have been mailed to all physicians in the state, but if you have not received this information, including pre-registration forms and hotel reservation cards, call SCMA Headquarters in Columbia (798-6207 or 1-800-327-1021). There is no registration fee for SCMA members. On-site registration again will utilize computers and word processors, but pre-registration is encouraged to avoid delays at the registration desk.

The house of Delegates meets in full sessions on Thursday morning, April 27, and Sunday morning, April 30. Speaker of the House, O. Marion Burton, M.D., will preside with the assistance of Vice Speaker, Benjamin E. Nicholson, M.D. Reference Committee meetings are scheduled for Thursday afternoon.

A full schedule of scientific sessions on many topics of interest has been planned. Workshops begin on Wednesday afternoon and continue each afternoon thereafter through Saturday. General sessions are scheduled for Thursday afternoon on the topic of "Current Concepts in the Management of Sports Related Injuries" and on Friday and Saturday mornings on the subjects of "Psychiatric Topics for Primary Care Physicians" and "Occupational and Environmental Health." Consult the Schedule of Events which follows for details on all programs. Scientific sessions are jointly sponsored by both South Carolina Schools of Medicine and AMA Category I credits will be awarded attendees on an hour-for-hour basis. AAFP Prescribed Credits have been approved by the S. C. Academy of Family Physicians.

Special guests for this annual meeting include John Lee Clowe, M.D., Speaker of the House of Delegates of the American Medical Association, and the SOCPAC luncheon speaker, John S. Zapp, D.D.S., Director of Government Affairs for the AMA.

The third Leonard W. Douglas, M.D., Memorial Lecture, established by the S. C. Institute of Medical Education and Research, will feature as guest speaker, Nancy W. Dickey, M.D., member and former chairman of the AMA Council on Ethical and Judicial Affairs. Dr. Dickey will speak during the General Membership meeting on Thursday morning on "Medical Ethics: Where Do They Come From?"

The SCMA Auxiliary will hold its Annual Meeting concurrently with the SCMA, and in addition to the meeting of the Auxiliary House of Delegates, many special activities have been planned. More specialty societies will be holding sessions during the Annual Meeting than ever before. Again, this year, Mead Johnson Nutritional Division has organized and will provide the prizes for a golf tournament on Friday afternoon.

The SCMA Board of Trustees will meet on Wednesday, April 26, and at breakfast each day to consider business which arises during the House of Delegates meeting.

This issue of *The Journal* contains those reports, Resolutions, and other information available at publication deadline. Additional reports received after this issue has gone to press will be included in the Delegates Handbooks which will be mailed prior to the meeting. Delegates are asked to bring their handbooks to the meeting or to pass them along to Alternate Delegates if they are unable to attend.

-JD

ONE HUNDRED FORTY-FIRST ANNUAL MEETING SCHEDULE OF EVENTS

Wednesday, April 26, 1989

TIME/LOCATION	EVENT
7:30 a.m.-8:30 a.m. Shaftesbury Room	SCMA Board of Trustees Breakfast
8:30 a.m.-12:15 p.m. Willow I Room	SCMA Board of Trustees Meeting
11:30 a.m.-7:00 p.m. 2nd Floor Grand Hall	SCMA Registration—Open
12:15 p.m.-1:30 p.m. Jenkins/King Room	SCMA Board of Trustees Luncheon
1:00 p.m.-4:00 p.m. Suite 2H	SCMAA/SCIMER Scholarship Interviews
1:00 p.m.-5:00 p.m. Dogwood/Cypress/Live Oak Ballroom and Grand Hall	Exhibitors Setup
1:00 p.m.-5:00 p.m. 2nd Floor Lobby	Auxiliary Registration—Open
1:30 p.m.-3:00 p.m. Ashley Cooper Room	SCMA Hospital Medical Staff Section Meeting
1:30 p.m.-5:00 p.m. Willow I Room	SCMA Board of Trustees Meeting
3:00 p.m.-5:00 p.m. Drayton Room	SCMA Workshop: "Sexual Dysfunctions" "Organic Causes" Barry Bodie, M.D., Columbia "Psychological Aspects" Peter Kilmann, Ph.D., University of South Carolina
3:00 p.m.-5:00 p.m. Colleton Room	SCMA Workshop: "Medical/Legal Aspects of Drug Therapy" Carl Gainor, Ph.D., J.D., University of Pittsburgh
4:00 p.m.-5:00 p.m. Suite 2F	Auxiliary Long Range Planning Committee Meeting

Thursday, April 27, 1989

TIME/LOCATION	EVENT
7:00 a.m.-5:00 p.m. 2nd Floor Grand Hall	SCMA Registration—Open
7:00 a.m.-8:00 a.m. Shaftesbury Room	SCMA Board of Trustees Breakfast

SCHEDULE OF EVENTS
Thursday, April 27, 1989 (continued)

TIME/LOCATION	EVENT
7:00 a.m.-8:00 a.m. Hampton Room	SCMA Past Presidents' Breakfast
7:00 a.m.-8:00 a.m. Colleton Room	Specialty Society Delegates Meeting
7:30 a.m.-8:30 a.m. Booths 22 & 42	Coffee (Compliments of Physician Sales and Service, Inc.)
7:30 a.m.-5:00 p.m. Dogwood/Cypress/Live Oak Ballroom and Grand Hall	Exhibits Open
8:00 a.m.-9:00 a.m. Drayton Room	Auxiliary Continental Breakfast
8:00 a.m.-5:00 p.m. 2nd Floor Lobby	Auxiliary Registration—Open
8:00 a.m.-11:30 a.m. Willow/Magnolia Ballroom	SCMA House of Delegates
9:45 a.m.-10:45 a.m. Booths 22 & 42	Coffee Break (Compliments of Fenwick Hall Hospital)
10:00 a.m.-11:00 a.m. Riley Room	MUSC Medical Alumni Board Meeting
10:00 a.m.-12:00 noon Jenkins/King Room	Auxiliary Executive Board Meeting
12:00 noon-1:30 p.m. Gadsden Room	SCMA Medical Ethics Committee and Guest Program Participants Meeting & Luncheon
12:00 noon-2:00 p.m. Colleton Room	SCMA Young Physicians' Section Luncheon & Meeting
12:30 p.m.-1:30 p.m. Drayton Room	Reference Committee Chairmen's Luncheon
12:30 p.m.-2:00 p.m. Wickliffe House	Auxiliary Past Presidents' Luncheon
12:45 p.m.-2:30 p.m. Magnolia Ballroom	MUSC Alumni Luncheon
1:00 p.m.-2:30 p.m. Jenkins/King Room	Risk Management Luncheon “The Legal Noose Gets Tighter” Harold L. Hirsh, M.D., Washington, D. C.
1:30 p.m.-3:00 p.m. Hampton, Fenwick, Ashley Cooper and Edmunds	SCMA Reference Committee Meetings (Specific room assignments will appear in Delegates Handbook)

SCHEDULE OF EVENTS
Thursday, April 27, 1989 (continued)

TIME/LOCATION	EVENT
2:00 p.m.-3:00 p.m. Booths 22 & 42	Coffee Break (Compliments of CIBA)
2:00 p.m.-5:00 p.m. Willow Ballroom	SCMA Plenary Session: "Current Concepts in the Management of Sports Related Injuries" "Knee Injuries for the Non-Orthopaedist" John A. Bergfeld, M.D., The Cleveland Clinic Foundation "Unique Sports Problems in Youth" Suzanne Haefele, M.D., Rock Hill "Problems in Recreational Athletes" John A. Bergfeld, M.D., The Cleveland Clinic Foundation
3:00 p.m.-5:00 p.m. Colleton Room	SCMA Workshop: "Common Otolaryngology/Head and Neck Surgery Problems for the Primary Care Practitioner" "Sinusitis: Medical Management and When to Consider Surgery" William R. Lomax, M.D., Summerville "New Techniques in the Evaluation of a Neck Mass" J. David Osguthorpe, M.D., MUSC "How to Work-up the Dizzy Patient" William J. Fravel, M.D., Columbia "Current Indications for Tonsillectomy, Adenoidectomy and P.E. Tubes" William R. Lomax, M.D., Summerville "Hearing Loss: What Can be Done" Warren Y. Adkins, M.D., Charleston "Inhalant Allergies: Diagnosis and Pharmacology" Robert G. Mahon, Jr., M.D., Greenville "Sleep Apnea and Snoring" J. David Osguthorpe, M.D., MUSC
3:00 p.m.-5:00 p.m. Drayton Room	SCMA Workshop: "How to Practice Ethical Medicine in Today's Financial Climate" Nancy W. Dickey, M.D., Council on Ethical and Judicial Affairs—AMA
3:00 p.m.-5:00 p.m. Edmunds, Ashley Cooper and Gadsden Rooms	SCMA Reference Committee Meetings (Specific room assignments will appear in Delegates Handbook)
5:00 p.m.-6:30 p.m. Jenkins/King Room	SCMA Young Physicians Section Reception (Compliments of SCMA/JUA Risk Management Program)
6:00 p.m.-7:30 p.m. Magnolia Ballroom	SCMA Reception Honoring Delegates, Alternates, Speakers and Exhibitors

SCHEDULE OF EVENTS
Thursday, April 27, 1989 (continued)

TIME/LOCATION	EVENT
6:30 p.m.-8:00 p.m. Colleton Room	Medical College of Georgia Alumni Reception

Friday, April 28, 1989

TIME/LOCATION	EVENT
7:00 a.m.-5:00 p.m. 2nd Floor Grand Hall	SCMA Registration—Open
7:30 a.m.-8:30 a.m. Shaftesbury Room	SCMA Board of Trustees Breakfast
7:30 a.m.-8:30 a.m. Flagpole Terrace	Auxiliary Continental Breakfast
7:45 a.m.-8:45 a.m. Booths 22 & 42	Coffee
8:00 a.m.-12:00 noon 2nd Floor Lobby	Auxiliary Registration—Open
8:00 a.m.-5:00 p.m. Dogwood/Cypress/Live Oak Ballroom and Grand Hall	Exhibits Open
8:30 a.m.-11:00 a.m. Colleton Room	Sports Medicine Committee Breakfast Meeting

8:30 a.m.-12:00 noon Willow Ballroom	SCMA Plenary Session: "Psychiatric Topics for Primary Care Physicians" (Supported by a grant from the Educational Unit of the Upjohn Company) "The Diagnosis and Clinical Management of Elderly Patients" Michael Malone, M.D., Charleston Charles Still, M.D., Columbia "The Psychiatric Diagnosis and Management of Depression in Children and Adolescents" Tillmon Simmons, M.D., Marshall I. Pickens Hospital, Greenville Charles Casat, M.D., MUSC
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9:00 a.m.-10:30 a.m. Gadsden Room	Prof. Liability Committee Meeting
9:00 a.m.-12:00 noon Magnolia Ballroom	Auxiliary House of Delegates
10:30 a.m.-11:30 a.m. Gadsden Room	SCIMER Board Meeting

SCHEDULE OF EVENTS
Friday, April 28, 1989 (continued)

TIME/LOCATION	EVENT
10:30 a.m.-11:30 a.m. Booths 22 & 42	Coffee Break (Compliments of Charter Rivers Hospital)
12:00 noon Patriot's Point Golf Links	Golf Tournament—Organized by and Prizes Awarded by Mead Johnson Nutritional Division
12:00 noon-12:30 p.m. Palmetto Courtyard	Auxiliary Reception Honoring New Officers
12:30 p.m.-2:00 p.m. Ashley Cooper Room	S. C. Society of Ophthalmology Executive Committee Meeting
12:30 p.m.-2:00 p.m. Fenwick Room	Editorial Board Luncheon
12:30 p.m.-2:00 p.m. Shaftesbury Room	Auxiliary Presidents' Luncheon
1:00 p.m.-3:00 p.m. Magnolia Ballroom	SCMA Workshop: "RBRVS" James F. Rodgers, Ph.D., Director: Center for Health Policy Research—AMA
1:00 p.m.-5:30 p.m. Jenkins/King Room	S. C. Dermatological Association Meeting and Scientific Session: "Sports Dermatology" Wilma F. Bergfeld, M.D., The Cleveland Clinic Foundation "Sports Injuries in the Weekend Athlete" John A. Bergfeld, M.D., The Cleveland Clinic Foundation "Dermatologic Therapeutic Pearls" Richard Odom, M.D., University of California Medical Center "Cosmetic Drugs in Dermatology" Wilma F. Bergfeld, M.D.
1:30 p.m.-5:00 p.m. Drayton Room	S. C. Diabetes Association: Treatment of Diabetes Mellitus in 1989 (Supported in part by an educational grant from the Medical Sciences Liaison, Metabolic Disease Unit of the Upjohn Company) Introductory Comments: Leonard Lichtenstein, M.D. "Aggressive Treatments for NIDDM (Type II)" Thomas Flood, M.D., Atlanta "Approach to Type I Patient: Improved Compliance" Thomas Flood, M.D., Atlanta "Gestational Diabetes, An Overview" Kay McFarland, M.D., USC School of Medicine

SCHEDULE OF EVENTS
Friday, April 28, 1989 (continued)

TIME/LOCATION	EVENT
2:00 p.m.-4:30 p.m. Colleton Room	<p>“Value of Experimental Immunotherapy in the Prevention of Type I Diabetes Mellitus” George Bright, M.D., MUSC</p> <p>“Clinical Approaches to the Child and Adolescent Diabetic” Frank Bowyer, M.D., Columbia</p> <p>“The Diabetes Summer Camp Program in South Carolina” Mr. Frank Shuler, Chairman of the Board, S. C. Affiliate, American Diabetes Association and Frank Bowyer, M.D., Columbia</p> <p>S. C. Oncology Society Meeting and Scientific Session: “Current Approaches to Therapy of High Grade Gliomas”</p> <p>“Topographic Considerations in Therapy of Glioblastoma Multiforme” Peter Burger, M.D., Duke University Medical Center</p> <p>“Chemotherapy and Immunotherapy of Malignant Gliomas” M. Stephen Mahalay, Jr., M.D., Ph.D., University of Alabama at Birmingham</p> <p>“Radiotherapeutic Approaches to Glioblastoma Multiforme” Merle Salter, M.D., University of Alabama at Birmingham</p>
2:30 p.m.-3:30 p.m. Booths 22 & 42	Coffee Break (Compliments of Boehringer Ingelheim)
3:00 p.m.-5:00 p.m. Sign up at Auxiliary Registration Desk— 2nd Floor Lobby	Charleston Historical Tour of Physicians' Homes and Gardens with Martha Derrick and Ann Edwards
3:30 p.m.-5:00 p.m. Hampton Room	<p>SCMA Workshop: “AIDS and the Primary Care Physician: S. C. Aids Training Network”</p> <p>Panelists: Donna L. Richter, Ed.D., University of SC; Charles S. Bryan, M.D., USC School of Medicine; Michael Saag, M.D., University of Alabama at Birmingham School of Medicine</p>
4:30 p.m.-6:00 p.m. Sebring-Aimar House C.1840—MUSC	MUSC Open House (Continuous Shuttle Service will be provided)
5:30 p.m.-7:30 p.m. Home of Dr. & Mrs. A. Bert Pruitt, Jr., 54 Meeting Street	Bowman—Gray Alumni Reception
6:00 p.m.-7:30 p.m. Magnolia Ballroom	SCMA Reception (Compliments of South Carolina Federal)

SCHEDULE OF EVENTS
Friday, April 28, 1989 (continued)

TIME/LOCATION	EVENT
7:00 p.m.-8:30 p.m. Drayton Room	S. C. Neurological Association Reception
7:00 p.m. Ashley Cooper	<i>MUSC Reunions</i>
Hampton and Colleton Rooms	December Class of 1943
Beauregard and Edmunds	Class of 1944
Rooms	Class of 1949
Willow II Room	Class of 1954
Jenkins/King Room	Class of 1969
Willow I Room	Class of 1974
7:00 p.m. The Lodge Alley Inn 195 East Bay Street	MUSC Reunion—Cocktails and Dinner for Class of 1959

Saturday, April 29, 1989

TIME/LOCATION	EVENT
7:00 a.m.-5:00 p.m. 2nd Floor Grand Hall	SCMA Registration—Open
7:30 a.m.-8:30 a.m. Shaftesbury Room	SCMA Board of Trustees Breakfast
8:00 a.m.-9:30 a.m. Ashley Cooper Room	S. C. Chapter of the American College of Physicians Breakfast and Business Meeting
7:45 a.m.-8:45 a.m. Booths 22 & 42	Coffee
8:00 a.m.-12:30 p.m. Dogwood/Cypress/Live Oak Ballroom and Grand Hall	Exhibits Open
8:00 a.m.-9:00 a.m. Suite 2E	S. C. Chapter of the American Academy of Pediatrics Executive Committee Meeting

8:00 a.m.-11:00 a.m. Hampton Room	S. C. Association of Neurological Surgeons Breakfast Meeting and Scientific Session: “Automated Percutaneous Diskectomy” J. M. Marzluff, M.D., Charleston “Surgical Treatment of Spondylolisthesis” Stephen E. Rawe, M.D., Charleston “New Techniques of Lumbar Spine Stabilization” George Sypert, M.D., University of Florida Health Center
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SCHEDULE OF EVENTS
Saturday, April 29, 1989 (continued)

TIME/LOCATION	EVENT
9:00 a.m.-12:00 noon Jenkins/King Room	S. C. Chapter of the American Academy of Pediatrics Scientific Session: "HIV Screening in Newborns" Arthur F. DiSalvo, M.D., Columbia "Steroid Use in Athletes" Frank P. Bowyer, M.D., Columbia "Public Law 99-457: Early Intervention and the Role of the Pediatrician" Ernest F. Krug, III, M.D., Greenville "Pediatric AIDS" L. Reed Shirley, M.D., Children's Hospital, Charleston
8:00 a.m.-12:00 noon MUSC, Basic Science Building	S. C. Society of Anesthesiology: Pediatric Anesthesia "Pediatric Outpatient Anesthesia" Norman Brahen, M.D., MUSC "Do Neonates Need Anesthesia?" Andy Stacik, M.D., USC School of Medicine "Regional Anesthesia to Infants and Children" Chris Yeakel, M.D., USC School of Medicine
8:30 a.m.-12:00 noon Willow Ballroom	SCMA Plenary Session: Occupational and Environmental Health "Overview" David E. Koon, M.D., Columbia "Occupational Dermatoses" Edward J. Shmunes, M.D., Columbia "The Role of the Industrial Hygenist" Richard Bennett, Ph.D., Azimuth, Inc., Charleston
8:30 a.m.-12:00 noon Gadsden Room	S. C. Neurological Association "Neurologists and the RBRVS" Nelson G. Richards, M.D., Richmond, VA
8:30 a.m.-12:30 p.m. Colleton Room	S. C. Dermatological Association Meeting and Scientific Session: "The Art of Chemical Peeling" Harold J. Brody, M.D., Atlanta "Dermatologic Manifestations of HIV Infection" Richard Odom, M.D., University of California Medical Center "What's New" Bruce H. Thiers, M.D., MUSC
9:00 a.m.-11:00 a.m. Edmunds Room	SOPPAC Board Meeting

SCHEDULE OF EVENTS
Saturday, April 29, 1989 (continued)

TIME/LOCATION	EVENT
9:00 a.m.-12:15 p.m. Drayton Room	S. C. Radiological Society Meeting and Scientific Session: "The Importance of New Technology for Radiology" Ronald G. Evens, M.D., Mallinckrodt Institute of Radiology "Ultrasonography of the Newborn" Michael S. Tenner, M.D., New York Medical College "3-D Computed Tomography" Richard Holgate, M.D., MUSC "Relative Value Scale for Radiologists and Current Situation with HCFA" Robert S. Lackey, M.D., Charlotte, N. C.
10:00 a.m.-11:00 a.m. Booths 22 & 42	Coffee Break (Compliments of Shepherd Spinal Center)
10:00 a.m.-12:00 noon Suite 2J	S. C. Society of Pathologists Business Meeting
11:00 a.m. Home of Dr. & Mrs. Bonner Thomason	MUSC Reunion—Brunch for Class of 1964
12:15 p.m.-1:15 p.m. Shaftesbury Room	S. C. Radiological Society Reception
12:45 p.m.-2:15 p.m. Magnolia Ballroom	SOCPAC Luncheon Guest Speaker: John S. Zapp, D.D.S., Director of Government Affairs—AMA, Washington, D. C.
1:00 p.m.-6:00 p.m. Jenkins/King Room	S. C. Chapter, American Academy of Family Physicians Board Meeting
1:15 p.m.-3:45 p.m. Shaftesbury Room	S. C. Radiological Society Luncheon and Meeting
1:30 p.m.-3:00 p.m. Edmunds Room	SCMA Workshop: "The Geriatrics Patient" "Management of Pressure Sores in the Nursing Home Environment" David Stokes, M.D., Inman "Rheumatic Diseases in the Geriatric Population" Richard M. Silver, M.D., MUSC
2:00 p.m.-4:00 p.m. Colleton Room	S. C. Society of Pathologists Scientific Session: "Soft Tissue Pathology" Franz Enzinger, M.D., Washington, D. C.
2:30 p.m.-4:30 p.m. Willow Ballroom	S. C. Cardiac Rehabilitation Association Meeting "Cardiac Rehabilitation: Direction for the Nineties" John Cantwell, M.D.

SCHEDULE OF EVENTS
Saturday, April 29, 1989 (continued)

TIME/LOCATION	EVENT
2:30 p.m.-5:00 p.m. Drayton Room	CLE/CME
3:00 p.m.-4:30 p.m. Hampton Room	Annual Meeting of the South Carolina Medical Care Foundation and Board of Directors
6:30 p.m.-7:30 p.m. Dogwood/Cypress Ballroom	SCMA Presidents' Reception (Compliments of Carolina Physicians Advisory Service)
7:00 p.m. The Fish Market 12 Cumberland at East Bay	MUSC Reunion—Dinner for Class of 1964
7:30 p.m.-12:00 a.m. Willow/Magnolia and Live Oak Ballrooms	SCMA President's Inaugural Banquet (Dancing and Open Bar—Compliments of the S. C. Medical Care Foundation)

Sunday, April 30, 1989

TIME/LOCATION	EVENT
7:00 a.m.-10:30 a.m. 2nd Floor Grand Hall	SCMA Registration—Open
7:30 a.m.-8:30 a.m. Shaftesbury Room	SCMA Board of Trustees Breakfast
8:30 a.m.-12:30 p.m. Dogwood/Cypress and Live Oak Ballrooms	SCMA House of Delegates
12:30 p.m.-1:00 p.m. Jenkins/King Room	SCMA Board of Trustees Reorganization Meeting

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Indications: Yocon® is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

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Dosage and Administration: Experimental dosage reported in treatment of erectile impotence,^{1,3,4} 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to ½ tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.³

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:

1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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BRIEF SUMMARY

CONTRAINDICATIONS

There are no known contraindications to the use of sucralfate.

PRECAUTIONS

Duodenal ulcer is a chronic, recurrent disease. While short-term treatment with sucralfate can result in complete healing of the ulcer, a successful course of treatment with sucralfate should not be expected to alter the post-healing frequency or severity of duodenal ulceration.

Drug Interactions: Animal studies have shown that simultaneous administration of CARAFATE (sucralfate) with tetracycline, phenytoin, digoxin, or cimetidine will result in a statistically significant reduction in the bioavailability of these agents. The bioavailability of these agents may be restored simply by separating the administration of these agents from that of CARAFATE by two hours. This interaction appears to be nonsystemic in origin, presumably resulting from these agents being bound by CARAFATE in the gastrointestinal tract. The clinical significance of these animal studies is yet to be defined. However, because of the potential of CARAFATE to alter the absorption of some drugs from the gastrointestinal tract, the separate administration of CARAFATE from that of other agents should be considered when alterations in bioavailability are felt to be critical for concomitantly administered drugs.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Chronic oral toxicity studies of 24 months' duration were conducted in mice and rats at doses up to 1 gm/kg (12 times the human dose). There was no evidence of drug-related tumorigenicity. A reproduction study in rats at doses up to 38 times the human dose did not reveal any indication of fertility impairment. Mutagenicity studies were not conducted.

Pregnancy: Teratogenic effects. Pregnancy Category B. Teratogenicity studies have been performed in mice, rats, and rabbits at doses up to 50 times the human dose and have revealed no evidence of harm to the fetus due to sucralfate. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when sucralfate is administered to a nursing woman.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Adverse reactions to sucralfate in clinical trials were minor and only rarely led to discontinuation of the drug. In studies involving over 2,500 patients treated with sucralfate, adverse effects were reported in 121 (4.7%).

Constipation was the most frequent complaint (2.2%). Other adverse effects, reported in no more than one of every 350 patients, were diarrhea, nausea, gastric discomfort, indigestion, dry mouth, rash, pruritus, back pain, dizziness, sleepiness, and vertigo.

OVERDOSAGE

There is no experience in humans with overdosage. Acute oral toxicity studies in animals, however, using doses up to 12 gm/kg body weight, could not find a lethal dose. Risks associated with overdosage should, therefore, be minimal.

DOSAGE AND ADMINISTRATION

The recommended adult oral dosage for duodenal ulcer is 1 gm four times a day on an empty stomach.

Antacids may be prescribed as needed for relief of pain but should not be taken within one-half hour before or after sucralfate.

While healing with sucralfate may occur during the first week or two, treatment should be continued for 4 to 8 weeks unless healing has been demonstrated by x-ray or endoscopic examination.

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Reference:

- Eliakim R, Ophir M, Rachmilewitz D: *J Clin Gastroenterol* 1987;9(4):395-399.

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OFFICER REPORTS

THE PRESIDENT

Thank you for the privilege of serving as your president this past year. SCMA is in good condition and has had a very successful and productive year. Organized medicine has served its constituent members, in fact, all the physicians in South Carolina as well as the citizens of South Carolina, in an exemplary manner. It has been a busy year for your president. I will try to summarize my activities succinctly in this report.

On the national scene, I have attended two very important AMA meetings. At the Annual Meeting in June, the resolution concerning registered care technologists was passed by the AMA House of Delegates. This created quite a stir among organized nursing. In the interim AMA meeting, the Resource Based Relative Value Scale was debated and endorsed to the degree that AMA will participate as a major player in its development. Both of these are issues very important to the continued private practice of medicine on a fee for service basis. I attended and was appointed chairman of a discussion group with a national conference of Blue Cross executives and leaders in medicine. This was a very good meeting and should result in an improved relationship between physicians and "the blues." Hopefully we can develop some advisory relationship with Blue Cross and Blue Shield of S. C.

SCMA has developed a very strong position on the S. C. legislative scene. Our legislative efforts have been tremendously successful. Not a single bill that we opposed in the 1988 Session got out of committee! Finally, SCMA is dealing with a proactive philosophy which is much more rewarding in the legislature than retroactive reaction. We have gained the respect of a large number of members of both Houses, and I predict our continued success in the current session.

I have enjoyed a very good relationship with Commissioner Mike Jarrett of DHEC. I have served as a consultant and as a member of his ad hoc committee to improve maternal and child health. We are headed in a positive direction on this front. As a consultant to the Health and Human Services Finance Commission, I have had the opportunity to represent SCMA on the Medicaid front. Dr. Andy Laurent has accepted and responded to SCMA input concerning the Medi-

caid program in South Carolina. I encourage you all to participate in this very necessary part of our medical delivery system. SCMA and Dr. Laurent are trying to join in an effort to make the system more palatable.

It seems that some progress is being made in the waste disposal issue. With all the publicity of dumped medical waste showing up on our beaches last summer, we are now faced with the issue of infectious waste disposal. Hopefully, we can resolve this issue comfortably in the present legislative session.

One of my real thrusts this year was to try to get some good news out to the public about our association and our profession. I have enjoyed a very good relationship with the news media this year. I have been consulted on every newsworthy issue, and I believe we have prevailed in most instances. I must say that the media representatives have certainly treated me fairly and honestly.

The Personal Care physician program is under way and has brought positive comments from members of the Legislature and the media. I encourage all our membership who are not participating physicians in Medicare to join this program. The Personnel Care program demands little extra from you and provides a real service to the needy elderly and a boost to our public appearance. This program can reward the profession in good will which we sorely need.

SOCPAC and AMPAC continue to flourish. For the first time ever we have more than a thousand members in SOCPAC. This still represents only about one-third of our membership. We should have 100% membership in SOCPAC and even this would be "a drop in the bucket" compared to what some of our adversaries are spending. Four hundred seventeen chiropractors in S. C. have employed a former state senator, a very impressive and expensive Columbia P.R. firm and a law firm in Columbia to represent them—and only a third of our members will spend \$100 to join SOCPAC. Think about that! SOCPAC has been very effective in the local state political campaigns. I am sure you have heard the John Rama story. In fact, only one or two SOCPAC supported candidates lost their elections last year. SCMA enjoys a respectable fifth in the nation in

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percent of members in AMPAC.

The SCMA Auxiliary has been very active this year, under the capable leadership of Mrs. Mary James. The Health Education Van is launched and is a very positive addition to health education in South Carolina. The S. C. Department of Education has accepted its maintenance and staffed it with two very capable health educators. The auxiliary is to be commended for this very successful project which will serve a great need in S. C. We are the first state to have such a project and will surely get recognition for it at the national level. I thank the auxiliary and especially Mary James for their support during the past year.

As usual, the committee chairmen and members who have served this year have done a yeoman's job. The productivity of our association depends on the committee structure. I sincerely thank all of you for your time, your thoughts and your loyalty to SCMA. I have tried to involve more and more members in the work of the association. I have especially tried to identify and involve interested younger physicians. Those who have become involved have recognized the need and purpose of SCMA and will be its future leaders.

I am very grateful to all of our component county medical societies. Your interest and support provide SCMA with a grass roots system second to none. I have certainly enjoyed the hospitality and camaraderie of the county societies that I have visited. I am very sorry that I was unable to visit you all. I hope I was able to share some information and impart some enthusiasm for organized medicine to each of you. I frequently hear the locker room discussions of how little we do, but I hope I have been able to shed some light on how much we are doing for all of our membership.

The AMA Delegation has worked hard for us at the national level. Dr. Hawk (Jr.) is a real taskmaster who sees to it that all in attendance participate in reference committees and are well read on the issues. We have a dedicated, hard working delegation who represent us well.

The SCMA Annual Meeting has become a truly outstanding event. Dr. Marion Burton has handled the business of our House of Delegates in a very professional manner. Having visited other state meetings this year, I can honestly say we are better than most. Dr. O'Neill Barrett is to be commended on his performance as our CME program director. His scientific programs for the last

few years are truly a class act! We have continued increases in attendance and are even attracting out-of-state physicians. One could not expect a better weekend with old professional friends.

The President's Page in the SCMA *Journal* has been a fantastic outlet for some of my philosophical thoughts. I have really enjoyed the opportunity to say what I thought on a few subjects. I have been criticized for some and praised for some, as it should be, from individual members. I was very flattered to have had one of my "pages" faxed to all state associations by the AMA. My invitations to speak to the Charleston Downtown Rotary Club, the Sumter Rotary Club, the National Association of JUA's, and many other groups were very flattering, and I hope that I represented you well before these groups.

The staff of the SCMA is fantastic! The staff members are well coordinated, and I have not heard an unpleasantry from the home office. I could not have had better support. Bill Mahon has far exceeded his job description in helping me to provide leadership for SCMA. I would like to thank and commend each of the staff for their tireless efforts and loyalty to our organization. In all my years of involvement, I have never witnessed a more pleasant and supportive group.

Dr. Chris Hawk has done a tremendous job as Chairman of the Board of Trustees. He has streamlined the meetings, making them much more efficient and productive. I am sure all our board members appreciate his very capable leadership. I thank the members of the SCMA Board of Trustees for all your support and help through the year. You have all worked very hard to make the SCMA productive and successful in its mission during the year.

In summary, the SCMA has had a very successful year from the viewpoint of your president. I truly appreciate your trust and confidence in allowing me to preside. It is truly the greatest honor I have realized in life. As I turn the gavel over to Dr. Dan Brake, I commend him to you as a thoroughly attractive and intelligent leader and friend who will serve us well and to whom I pledge my loyal support.

Respectfully submitted,
Thomas C. Rowland, Jr., M.D.,
President

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THE SPEAKER OF THE HOUSE

The 141st Annual Meeting and Scientific Assembly of the SCMA will be held April 26-30, 1989, in the Omni Hotel at Charleston Place. This is the third year our meeting will be held in this charming setting. That should add excitement and enthusiasm to the scientific sessions and social events. O'Neill Barrett, M.D., once again has an outstanding array of academic and clinical talent assembled to update us in various aspects of medicine. Nancy Dickey, M.D., will present our third annual Leonard Douglas Memorial Lecture at the Thursday morning House of Delegates. We will be privileged to have Dr. John Clowe, Speaker of the AMA House of Delegates, with us for the weekend. In addition to the scientific assemblies, there will be major sessions on the Harvard Relative Value Scale and Ethics. Please make your plans to share all this and more with us in Charleston.

Your Board of Trustees, officers and staff have worked this year to implement those resolutions and recommendations adopted by the House of Delegates at its 1988 meeting and included in this report. You accepted a recommendation by the Trustee from the First Medical District that Board of Trustees' minutes be summarized and included in the "SCMA Newsletter." This has been accomplished, and the result is a more timely involved membership between annual meetings. Your vote last year for an increase in dues has resulted in continued financial stability and strength of our organization. Without appropriate financing, your staff and officers could not have accomplished many of the victories you and your patients have witnessed this year. Your reaffirmation of concern about toxic waste in this state has helped prompt our governor, legislators, involved agencies and the press to implement strong language regarding the continued movement of toxic and hazardous waste to S. C. for storage. Governor Campbell has issued an executive order banning these substances from entering S. C. from states who do not allow storage of these materials themselves. DHEC has strengthened its approach to these storage sites and involved your SCMA leadership in their task force. We have gone on record as recognizing the potential hazards of tanning facilities. Your 1988 House of Delegates adopted an official position regarding patients with AIDS. Evidence of your 1987 actions regarding tort re-

form are being felt in stable and in some cases lower professional liability insurance premiums. The Personal Care program for Medicare individuals has been widely acclaimed by laymen and influential legislators, clearly eliminating the need for any mandatory assignment. Your resolution F-9 asking you, the staff and officers to seek means to have the current PRO replaced has been successful. We now have a new professional review agency in this state.

As you peruse the resolutions from last year and listen to various staff and officer reports including that of our Executive Vice President, you will undoubtedly see that the directions you set for our association resulted in numerous successes this past year.

Your staff continues to work to insure that the House of Delegates functions as a completely representative body for our membership. We have had an increased interest in our body from the specialty society delegate representation this year and this is particularly pleasing. We want to continue to enhance the spontaneity and effectiveness of our body and to enhance the opportunity for individual delegate input. In these and other matters we owe a debt of gratitude to our Executive Vice President, Bill Mahon, and the staff that serves us so well. Day in and day out, through many difficult negotiations, plans and activities, these men and women are guarding our interests and those of our patients. When you see them, don't forget to thank them for what they do for us.

Respectfully submitted,
O. Marion Burton, M.D.,
Speaker of the House

THE TREASURER

As I complete my second year as Treasurer of the South Carolina Medical Association, I would like to present a short report about the SCMA's financial condition. A more comprehensive report will be presented to the 1989 House of Delegates in Charleston.

For the year ended June 30, 1988, the SCMA had net expenses over revenue including depreciation of \$122,841. However, if you exclude depreciation expense of \$29,531 the SCMA had net operating expenses over revenue of \$93,310.

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The SCMA had a Fund Balance of \$1,487,010 as of June 30, 1988.

The SCMA's current financial condition for the seven months ended January 1989 projects a negative financial position. At the end of January, the SCMA had expenses over revenue of \$75,243. We currently project that the SCMA will have net expenses over revenue of \$100,000 for this fiscal year.

The investment policies of the SCMA and its affiliates have continued in a similar manner, as in past years, with diversified investments in federal treasury and agency notes and money market funds. As of June 30, 1988, the SCMA's permanent and operating reserves had balances of \$1,100,000 and \$387,010 respectively.

It is the SCMA's policy to maintain total reserves equal to one year's operating budget and any excess should be allocated to cover future operational deficits. Therefore, the permanent

and operating reserves will remain constant for the year ending June 30, 1989.

The House of Delegates in 1988 approved a dues increase of \$100 which will be implemented over a period of three (3) years. This will be the first dues increase since 1977, which is a considerable accomplishment in itself and one of which we should be proud. We have a record of operating on a sound financial basis and with this increase we will continue to do so. For fiscal year ending June 1990 we project a loss of approximately \$80,000; however, the following year we should have a balanced budget. I thank the membership for the privilege of having served as your treasurer for this past year.

Respectfully submitted,
Bartolo Barone, M.D., F.A.C.S.,
Treasurer

THE CHAIRMAN OF THE BOARD

Thank you Mr. Speaker, members of the House of Delegates, members of the SCMA, and guests. Each year the chairman reports that the board has been very active, and this year was no exception. The board's responsibility is to carry out the directives of the House of Delegates, to set board operating and program policies for the SCMA, to monitor achievement of goals and objectives, and to evaluate SCMA programs to determine if they meet the needs of its members. I think that the board is effectively handling its responsibility, but I submit that the task is great, and we would benefit from your input at any time.

At its regular meetings, the board or Executive Committee approves honorary and disabled memberships, approves appointments to SCMA committees and subsidiary boards, selects nominees for state government commissions and departments, reviews the financial reports of the SCMA and its subsidiaries, reviews the membership totals and discusses ways to increase membership, and evaluates and handles requests from individual members or component societies. The board regularly refers items to the SCMA committees. However, most of the time at board meetings is not spent on these routine tasks, but rather in discussing the major issues which are facing the SCMA and its members.

The Chairman of the Board is elected at a Board Reorganization Meeting at the conclusion of the SCMA Annual Meeting. I thought that I would have a few months to learn the ropes, but unfortunately our Medicare carrier (Blue Cross) dropped a major bombshell when it mailed 4,500 Prohibition Against Billing Notices ("Medically Unnecessary" letters) the following day! Like most physicians, I did not know how to decipher these letters, much less what to do about them. The SCMA staff immediately contacted AMA and Blue Cross, realized that Blue Cross had made some major errors, and convinced them not to send out any more notices until the situation had been clarified. Blue Cross had been sending out these letters based on a computer screen, rather than following the HCFA policy to carry out "claims development" first. The board voted to take a strong stand on this issue by demanding that Blue Cross rescind its original letter and send an apology to physicians and patients. Blue Cross complied with our request. We also sent a letter to Otis Bowen, M.D., Secretary of U. S. Department of Health and Human Services, and made suggestions for appropriate implementation of the law.

On June 20th the SCMA staff, Dan Brake, and I met with representatives from Blue Cross and our

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Congressmen to discuss the situation. All the Congressmen had received numerous complaints from physicians in their districts and were very receptive to our requests for their help. During the next month the SCMA staff worked with the Blue Cross staff to ensure that they were following the proper procedure before sending out Medicare PAB Notices. During the entire period the SCMA kept the membership informed through direct mail and timely updates in *The Journal*.

The board wrote our Congressmen, asking them to contact HCFA expressing our dissatisfaction with implementation of the law and recommending that a minimum dollar cut-off be established (e.g. \$25), below which PAB Notices would not be sent. In July the board sent a second letter to our Congressional Delegation asking them to sponsor legislation seeking repeal of the law creating the Prohibition Against Billing provision.

The board also decided to offer its assistance to a group of Aiken physicians, led by Dr. Peggy Fitch, who were making an effort to set up a meeting with our Congressional Delegation in Washington. Dr. Fitch and the Aiken physicians met regularly to plan their presentations, and in September Mrs. Barbara Whittaker, Dr. Dan Brake, and I met with them to go over the final agenda prior to the meeting in Washington on October 3rd. We met with Senator Thurmond, Congressman Derrick, and William L. Roper, M.D., the Administrator of HCFA, and discussed major problems with Medicare for one hour.

That afternoon Dr. Brake, Mrs. Whittaker and I visited the offices of our Congressmen and talked with them further about the problems. We subsequently asked our Congressional Delegation to request a GAO study of HCFA's implementation of the "Unnecessary Services" provision, and we included a draft letter from the AMA. Our Congressional Delegation did request a GAO investigation, which is currently being conducted.

The board later requested that Dr. Roper change the wording on the Medicare beneficiary's EOMB to explain correctly the difference between the MAAC and the "allowed charge" and to correct the inaccurate definition of "prevailing charges." Dr. Roper has written us back about the changes which he has made, but the board does not feel the changes are adequate and is continuing to pursue this matter.

At the AMA Leadership Conference in Febru-

ary, the SCMA was recognized for its major role in assisting the AMA in getting changes made in this law and particularly for getting our Congressional Delegation to request the GAO investigation.

Another major issue for the Board of Trustees was the PRO Contract. Resolution F-9 at last year's Annual Meeting requested that the SCMA seek to have the current PRO replaced by another PRO more acceptable to the physicians and patients of South Carolina. The board had initially contacted Medical Review of North Carolina in October 1987 and asked them to consider bidding on the South Carolina contract. After the Annual Meeting, the board voted to support MRNC in its bid and sent a letter to all South Carolina physicians in July and requested their support for MRNC. The Metrolina contract terminated on September 30th, and South Carolina was left without a PRO for several months. In December, Medical Review of North Carolina was awarded the PRO contract and immediately began its work. We met with their executive director at the January Board Meeting, and we are optimistic that we can have a good relationship with MRNC.

The board spends considerable time discussing pending and proposed legislation. While the Legislature is in session, we track the progress of various bills through hearings, committees, and floor votes. Last year, no bill which we opposed made it out of committee. For the first time in four years, tort reform was not an issue this year. We had agreed not to bring it back for three years as part of an agreement at the time of the successful passage of the S. C. Civil Justice Coalition Bill last year.

The chiropractors, nurses, and physical therapists all have bills to enhance their position. When the chiropractors toured the state for press conferences on their "Free Choice" bill (mandatory insurance coverage), the SCMA was ready with a prepared statement to rebut their arguments. The nurses want to revise their "definition of nursing," and we are trying to reach an acceptable compromise with them.

Last fall we recognized the inevitability of a bill concerning infectious wastes. The board approved a feasibility study to review the alternatives for infectious waste disposal from physicians' offices. In February we sponsored a seminar for the Legislature to inform them about the infectious waste problem. We are working actively on the two infectious waste bills that have

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been submitted in the Legislature, and it appears likely that there will be a "small generator" exemption for physicians' offices. Dr. Ed Catalano has been our major leader with regard to "infectious waste" and we appreciate his efforts.

The board has met with the State Board of Medical Examiners at the SCMA Annual Meeting for the past few years in an effort to establish a good working relationship. In early May an amendment was tacked on a bill in the Legislature that would lower the minimum score required on one part of the FLEX Exam from 75 to 74, with an overall average of 75 still required. This provision was designed to allow one specific M.D. to be licensed. The Board of Medical Examiners requested that we lobby against the bill, but the bill had enough support that its passage was assured. Although we didn't like the bill and the way it had been whisked through the Legislature, we recognized the medical needs of that community and elected not to oppose the bill. The Governor allowed the bill to become law without signing it and emphasized that he did not approve of the manner in which this change in the credentialing process had been rushed through the Legislature. The Executive Committee has subsequently met with the Board of Medical Examiners to express our concern about this change in the licensure law and further changes that might be attempted in the future.

After the AMA approved the Registered Care Technologist program at the June Annual Meeting, the SCMA Board received numerous letters from nurses and a request from the South Carolina League of Nurses that we oppose the RCT program. The board went on record as recognizing a deficiency in bedside patient care which the nursing profession has not corrected. The SCMA supports the development of a Nurse Recruitment and Retention Center and other efforts to increase the number of nurses, but feels that we must be willing to pursue other options to correct the shortage in bedside care providers. Since then the SCMA officers have met with nursing groups on several occasions to explain the RCT program and the need to get better bedside patient care.

The board appointed an ad hoc committee, chaired by S. Perry Davis, M.D., to review the report of the DHEC Task Force on Hazardous Waste. The Ad Hoc Committee submitted its report, which was approved by the Executive Committee, and the SCMA made a public an-

nouncement about it. The board will continue to monitor this issue and appreciates the input of the Sumter-Clarendon-Lee Medical Society.

At the 1988 Annual Meeting the House of Delegates approved a resolution expressing dissatisfaction with the policies of many self-insured companies in reference to utilization review and reimbursement mechanisms. This resolution was further revised and taken to the AMA Interim Meeting in December, and it passed. The AMA Board is to "investigate current governmental and/or other controls over self-insured companies to determine whether there is adequate uniformity of requirements for initial and continued hospitalization review and report to its House of Delegates at the 1989 Interim Meeting on the feasibility of seeking such changes which would enhance the accountability of self-insured companies in the administration of their respective health insurance plans."

Last June, in response to a request from the SCMA Board and the 1987 House of Delegates, the Chief Insurance Commissioner, John G. Richards, issued a bulletin to all health insurers regarding complaints about preadmission review requirements. The Department of Insurance will not tolerate unreasonable delays and requests for information and will maintain a file of complaints. The SCMA has currently submitted a Utilization Review Bill requiring that any physician or nurse doing preadmission or other utilization review must be licensed in South Carolina.

The Personal Care program, a voluntary Medicare assignment program, has been established. The board approved having the Commission on Aging issue the cards to Medicare patients whose income is at or below 150% of the poverty level. If you are a non-participating physician and have not signed up for the Personal Care program, I urge you to do so. Our best chance to prevent mandatory Medicare assignment is to demonstrate that we are providing care for the elderly with limited finances.

The SCMA sponsored its third annual Leadership Conference in January. The program included discussions on the SCMA legislative agenda, Connecticut's battle against Medicare mandatory assignment, a report on AMA activities in Washington, a discussion on the role of medical ethics, and talks by the director of Medicaid and by the State Insurance Commissioner. The program was excellent, and I would encourage

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you to be sure that your county and specialty society officers attend next year.

One of the duties of the board is to evaluate the Chief Executive Officer. We have worked out a format for annual evaluation with the CEO submitting a summary of his activities, and the board then evaluating his performance in the seven major areas specified by his contract. Bill Mahon again received high marks in all categories, and the board has reaffirmed its confidence in him.

In September, the SCMA Board held its Annual Retreat in conjunction with the Trustees, Administrators, and Physicians Conference. The program concentrated on the changing environment for hospitals, governing boards, and physicians. If your hospital does not send representatives to this conference each year, I would encourage you to suggest it to your hospital administrator.

The board has taken a strong position with regard to smoking. We have voted to support the S. C. Hospital Association policy of "No Smoking" in all South Carolina Hospitals by 1990 and have approved a similar policy for physicians' offices. The board also voted to testify in support of the Clean Air Bill before the Legislature.

The board is attempting to keep the SCMA membership well informed about its activities. For the past two years we have invited county society presidents to attend the board meetings. However, the response has been so poor that I doubt we will continue it. This year we have been including a summary of the board meetings in the SCMA Newsletter, printed in *The Journal*. This expanded newsletter is an excellent update on the activities of the SCMA, Medicare, Medicaid, and other issues that affect your practice.

I think you can see from this report that the Board of Trustees has been very active in many areas. I appreciate the opportunity to serve as Chairman of the Board. I feel that we have an excellent SCMA staff and Board of Trustees, and they have both been very supportive. I hope that you will continue to support the SCMA and will let the board or SCMA staff know if you have suggestions on ways that we can better serve you or your patients.

Respectfully submitted,
J. Chris Hawk, III, M.D.,
Chairman of the Board

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SCMA NEWSLETTER

APRIL 1989

ANNUAL MEETING UPDATE

Included in this issue of The Journal are reports and resolutions to be considered at the 141st Annual Meeting of the South Carolina Medical Association to be held April 26 - April 30 at the Omni Hotel in Charleston. Mailing of handbooks to delegates is scheduled for April 10. Delegates who will be unable to attend are urged to pass their handbooks along to their alternate delegates since only a limited supply will be available at the meeting. As of March 31, a total of 232 physicians have pre-registered.

Susanne Geist Black, MD, nominated by the Dillon County Medical Society, will be presented the A. H. Robins' Physician's Award for Community Service at the Annual Meeting President's Banquet. Congratulations to the other physicians nominated for this prestigious award: Stoney Abercrombie, MD, Seneca; T. James Bell, MD, Hartsville; Charles Crews, MD, Lexington; William Lacey, MD, Pinopolis; Leslie Carl Meyer, MD, Greenville; Harry J. Metropol, MD, Columbia; and Harold G. Morse, MD, Anderson.

ANNUAL QUALIFICATION STATEMENT REQUIRED BY PROFESSIONAL CORPORATIONS

According to a law passed last year, all professional corporations in South Carolina must file a qualification statement with the appropriate licensing authority by April 1 of each year.

Physician corporations must file such a statement with the State Board of Medical Examiners and provide the names and usual business addresses of their directors and officers.

If this law applies to you, please contact your attorney or the State Board of Medical Examiners for the necessary forms to be filed in order for you to be in compliance with the law.

HIGHLIGHTS OF MARCH 22 BOARD OF TRUSTEES MEETING

At the March 22 meeting of the SCMA Board of Trustees, several important actions were taken.

The SC State Retirement Systems is establishing an appeals process on insurance coverage issues for which benefits have been

denied. The special Appeals Committee on Coverage will be composed of the Chief Insurance Commissioner or his designee; the Director of the SC Retirement Systems or his designee; and three physicians and/or clinical or counseling psychologists. The SCMA and the SC Board of Psychology have been asked to submit a list of five panelists who would be willing to serve. The SCMA is contacting the presidents of the state's specialty societies for nominees.

The Board heard concerns of the Small and Rural Hospital Council regarding recruiting physicians to the rural areas. An ad hoc committee is being organized to meet with the Hospital Association and the State Board of Medical Examiners in an effort to address these concerns.

The Board voted to endorse the SC Registry for Dementing Illnesses, after hearing a presentation from Charles Still, MD, Medical Director for the registry.

A request from the SC Pharmaceutical Association resulted in the Board's agreement to support Bill S.378 dealing with mail order "pharmacy". In addition, the Board voted to endorse the SC Society of Medical Assistants, Inc., to assist them in recruiting new members.

MEDICARE UPDATE

At recent Medicare workshops, Blue Cross and Blue Shield of South Carolina reviewed the new HCFA policy on ICD-9-CM coding of physician claims. Attendees at the workshop received a copy of the AMA's New ICD-9-CM Coding Requirements pamphlet, which summarizes these rules. To obtain a copy of this AMA brochure, contact Kim Fox, SCMA (1-800-327-1021).

At the workshops, the following points were explained:

- Physician claims must include codes from 001.0 through V82.9.
- The following rule is different from that used in hospital coding; i.e., on physician claims diagnoses documented as "probable" or "rule out" should not be coded as if the diagnosis was confirmed. Instead, code to the highest degree of certainty; codes for symptoms are acceptable.
- Failure by radiologists and pathologists to list a second code in addition to a V-code (such as V72.5 or V72.6) may result in a request for additional information from the carrier.
- The carrier "strongly recommends" that the primary physician record the reason for tests and x-rays when they are ordered.
- Your staff should use the Third Edition of the ICD-9-CM code book. To order, send \$43.00 to ICD-9-CM, Third Edition, Volumes 1 & 2, PO Box 360121, Pittsburgh, PA 15250-6121. Checks should be made out to "Superintendent of Documents."

Referring Physician Medicare Number

Medicare has clarified that the new requirement to include the Medicare provider number of the referring physician applies only to the following claims by physicians: independent labs, radiology and pathology.

PRO UPDATE

Keith H. Waters, MD, has been named Medical Advisor for Carolina Medical Review, the designated PRO for the state of South Carolina. As medical advisor, he will be responsible for providing the internal medical expertise needed to effectively maintain a medical peer review program for the physicians of this state. A native of North Augusta, SC, Dr. Waters received a BA in English from Clemson University and later received his Doctor of Medicine from the Medical University of South Carolina. He has 11 years experience as a physician and flight surgeon for the US Army, where he devoted considerable time to administrative medicine, utilization review, quality assurance and peer review. Prior to coming to CMR, Dr. Waters was a family physician in Easley, SC.

JUSTICE OFFICIAL WARNS PHYSICIANS ABOUT PRICE FIXING

Physicians who agree to fix prices, allocate territories or boycott competing health care providers will find themselves in more than just a little hot water with the Justice Department's active antitrust enforcement policy. Assistant Attorney General Charles Rule, speaking before the AMA House of Delegates, cautioned physicians that price fixing and certain other agreements among physicians are "unlawful regardless of their purpose or effect." "Such agreements may be criminal, even if physicians seek to ensure care of a higher level of quality or to safeguard the profession's ethical standards," he said.

Unlike the gray zones inherent in civil violations of the antitrust laws, Rule said criminal violations under antitrust laws are clear cut and can be avoided by adhering to the following guidelines. Specifically, physicians should not enter into agreement with competing physicians (1) on price, quantity or quality of services, including fee schedules and relative value scales; (2) on patients who will receive services, areas from which patients will be drawn and locations of offices; (3) and on refusals to offer services to alternative delivery systems.

HEALTH CARE FACILITY INVESTMENTS

The AMA is seeking illustrative examples of health facility investments physicians have made outside their practice for the primary purpose of providing patients with access to quality care in the communities where they practice.

Such documented situations are needed to respond to examples of abusive self-referrals that have been cited by proponents of legislation, such as Pete Stark's proposed H. R. 939, which would impose a virtual ban on physician referrals to facilities in which they or a member of their family have made investments. If you can furnish such an example, please contact Barbara Whittaker at SCMA.

THE CENTER FOR REHABILITATION TECHNOLOGY SERVICES

The Center for Rehabilitation Technology Services is a national rehabilitation engineering center funded to address service delivery needs for assistive technology in South Carolina and in the southeastern United States. The center, or CRTS, is part of the South Carolina Vocational Rehabilitation Department and is supported by the National Institute on Disability and Rehabilitation Research; however, CRTS can serve any disabled person, not only vocational rehabilitation clients. For information, please write to the Project Director, CRTS, 1410-C Boston Avenue, PO Box 15, West Columbia, SC 29171-0015; or call (803) 739-5362.

NOMINATIONS FOR AMA APPOINTMENTS

The AMA is soliciting recommendations for appointments to a variety of committees, including Graduate Medical Education, Continuing Medical Education, Residency Review and Medical Specialty Boards. If you are interested in serving on an AMA committee, please contact William Mahon at the SCMA prior to April 21.

SCMA MEMBERSHIP ACHIEVEMENT

Congratulations to Hampton County Medical Society which has achieved 100 percent membership in the SCMA!

UPCOMING CONFERENCES

The AMA is one of several co-sponsors of the International Conference on Genetic Variation and Nutrition, June 22-23 in Washington, DC. Registration fee is \$150 before May 31; \$200 after May 31. Write Artemis P. Simopoulos, MD, director, Center for Genetics Nutrition and Health, American Association for World Health, 2001 S. St., NW, Suite 530, Washington, DC 20009.

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Contributions welcomed.
Melanie McLendon, Editor
798-6207, in Columbia

TRUSTEE REPORTS

FIRST MEDICAL DISTRICT

It has been an honor and a pleasure for me to serve as your representative to the Board of Trustees from the First District. This has been my first year as a trustee, and I have found it to be rewarding and exciting to be involved in the future and policymaking decision of the SCMA and for medicine in South Carolina. I have attended all of the board meetings and also attended the TAPS Conference at Hilton Head Island this year. I have also served as a trustee on the board of the South Carolina Institute of Medical Education and Research as well as a board director for the South Carolina Political Action Committee.

The most enjoyable activity has been going out to the different component medical societies and visiting with them. At the present time, the most rewarding activity is working with the Beaufort and Hilton Head Medical Society. They are now an active medical society and are having meetings with most interesting speakers. It is still debatable as to whether they will remain as one medical society or will separate into two medical societies. The geography of the area necessitates the possibility of splitting into two component medical societies due to the distance of approximately a 45 minute drive from one area to the other.

It has been my privilege representing my colleagues from the First District over the past year at the SCMA Board of Trustees. I have endeavored to perform this task in an acceptable fashion and look forward to serving you in the future.

Respectfully submitted,
John B. Johnston, M.D., Trustee

FIRST MEDICAL DISTRICT (METROPOLITAN)

I am completing my fourth year as a member of the Board of Trustees and first year as Chairman of the Board. The SCMA Board continues to be very active in all areas that impact on South Carolina physicians and their patients, and I think it's safe to say that we will have major issues, including some unexpected ones, to deal with each year.

For some problems, such as the Medicare PAB Notices, we will need to work through the AMA, HCFA, and Congress because the issue affects all states and is decided at a national level. But "state" problems are decided by state employees or the Legislature, and the results depend entirely on our efforts. Bill Mahon and the SCMA staff are doing an excellent job in presenting our position, but we physicians must be willing to contact our legislators and do our part if we are to be successful. One problem with having an excellent staff is the natural tendency to let them do all the work. We all need to establish a working relationship with our legislators so that we can let them know our opinion on significant legislation. If you have not been the Doctor of the Day, I encourage you to do so. It is a good opportunity to view the work of the Legislature, and I have been assured that no other Doctors of the Day will be forced off the Senate floor!

This year I attended the AMA Annual and Interim Meetings, as well as the AMA Leadership Conference. I was impressed at all three meetings with the tremendous dedication and commitment of the Delegates and State Officers. At the AMA Leadership Conference, the SCMA was singled out for its efforts regarding the Prohibition Against Billing Notices and for getting the S. C. Congressional Delegation to request a GAO audit on the HCFA and Medicare carrier implementation of this law.

The Resource Based Relative Value Scale was the major topic at the AMA Meeting in December. I was impressed with the willingness of the delegates to put aside their differences and act with unity in the best interest of the profession. I hope that we can convince all of our colleagues at home to do likewise. As a surgeon, I am in the group which stands to lose from any significant overhaul of the current reimbursement system, but I fear we will lose much more if we don't stand united on this issue.

I have addressed specific issues in the Chairman of the Board's Report, and I hope that you will review it.

We have a strong Board of Trustees and a dedicated staff at SCMA, and we need your active participation in the many activities in our organi-

TRUSTEE REPORTS

zation. I hope that you will consider ways to improve the SCMA and let your ideas be known to the staff or members of the board.

Respectfully submitted,
J. Chris Hawk, III, M.D., Trustee

SECOND MEDICAL DISTRICT

It has been an honor for me to have served as your Second District Trustee for the past three years, and I thank you for allowing me this privilege.

In addition to attending the regular board meetings and the Board Retreat, I have acted as the board liaison to the Legislative Committee. This committee, ably chaired by Dr. Jim Pruitt, makes recommendations of support or opposition to various bills introduced into the State Legislature. These recommendations are then passed on to the board for its approval or rejection.

I have also served as vice chairman of SOCPAC for this past year. SOCPAC has made tremendous strides in the past several years, and this year we have over 1,000 members.

The Candidate Review Committee of SOCPAC is a very interesting and important committee on which I continue to serve. This committee decides which candidates to support and how much financial and other aid we will give. This is a non-partisan committee with the primary goal of improving the practice of medicine in the state. We also make recommendations to AMPAC for support or opposition in federal campaigns.

This year has been a good year for the SCMA. We have worked for and obtained significant improvement in tort reform. We have also been very influential in finally ridding ourselves of an unfair and arrogant PRO, but we still have to face the issues of mandated assignments and problems with DRG's plus chiropractic bills.

We need all the help we can muster. Please get politically involved and help those in the Legislature that are helping us. Join SOCPAC and ask your colleagues to join us in making SCMA even stronger.

Respectfully submitted,
Frank W. Young, M.D., Trustee

SECOND MEDICAL DISTRICT (METROPOLITAN)

This past year I have faithfully attended the South Carolina Medical Association Board of Trustees Meetings, the Executive Committee meetings, the Committee to Plan State Meetings and a number of other associated meetings and functions.

Physicians who disdain involvement in organized medicine and participation in the political process profess a desire to concentrate on the practice of their profession. They feel that by practicing quality medicine, the majority of the problems assaulting us will resolve themselves. This approach demonstrates a lack of understanding of "The American Way." This past year I have been amazed to learn of the tremendous amount of legislative initiatives which have the potential to significantly alter the manner and the extent of our medical practices.

The SCMA has worked tirelessly and effectively to promote the best interest of our patients and to maintain the integrity of our profession. In their own fashion, the combined efforts of the SCMA are as important as the activities of the State Board of Medical Examiners in preserving our ability to insure quality medical care within South Carolina. This past year my major contribution in these efforts has been in working with the infectious waste legislation. I am confident that we can end up with a reasonable bill which protects the public health and the environment without penalizing health care providers within the state.

I view the current leadership of the South Carolina Medical Association as truly representing the best interests of the physicians of the state as well as their patients. I appreciate being given the opportunity to participate and help guide this organization in a direction which will make it even more valuable and responsive in the future.

Respectfully submitted,
Edward W. Catalano, M.D., Trustee

THIRD MEDICAL DISTRICT

This has been a rather interesting year thus far. As Trustee of the Third District, I attended meetings of the board up to the time of this report. We

TRUSTEE REPORTS

have accomplished a lot this past year, and during this current year we will continue to work on problems that concern our membership. The Personal Care program is in progress and material has already been sent to those members planning to participate. The liability insurance problems are also being monitored.

Much information was obtained at a joint meeting with the Hospital Governing Board members at the Fall Retreat at Hilton Head. This meeting concerned the policies from the Health Care Financing Administration in Washington.

It was a privilege to have our President, Tommy Rowland, and our Executive Vice President, Mr. Bill Mahon, meet with the Greenwood Medical Society in January. Tommy gave a very comprehensive speech to the members. He will meet with the Laurens County Society in March at which time I will be out of town and regrettably unable to attend this meeting.

Currently, we are looking forward to the SCMA Annual Meeting which will be held in April at the OMNI Hotel in Charleston.

I would like to thank the members from the Third District for their cooperation and stand ready and willing to assist any member of our society in any way possible. I appreciate very much your allowing me to serve these past four years and look forward to further service.

Respectfully submitted,
Richard M. Carter, M.D., Trustee

FOURTH MEDICAL DISTRICT

The officers and administrative staff of the South Carolina Medical Association, supported by the Board of Trustees, and the faithful work of many active committees, have accomplished much for all physicians of South Carolina in the last year.

Our Ethics Committee presented "Principles of Medical Ethics of the South Carolina Medical Association." A "Personal Care" program for the low income Medicare patients is in place and working. A health education van, fostered mainly by our auxiliary, is ready for use in the schools of our state.

The scientific program at the Annual Meeting has progressively become a high quality benefit for physicians in our state.

Through the work of the Committee on Professional Liability and the Risk Management program, plus the efforts of many to effect tort reform, the malpractice climate in South Carolina is among the best in the country.

The JUA and PCF have performed so well that there will not be a premium increase this year.

The Legislative Committee has been very active and effective.

The Doctor of the Day program has continued under our sponsorship and has been very effective.

SOCPAC is growing and is very effective.

The Members' Insurance Trust offers excellent coverage for our members and their families and is now processing all claims in-house rather than contracting this function.

The Committee on Physician Advocacy and Assistance has been active and responsive to the needs of a number of physicians.

The Occupational Health Committee continues to maintain good rapport with the South Carolina Workers Compensation Commission effecting updating of the fee schedule and reviewing problems.

Many other committees have worked hard and long to maintain the excellent record of service of the medical association.

Personally, your trustee has participated in meetings of the Board of Trustees, served on the Legislative and Mediation Committees, participated in the Doctor of the Day program, attended the Leadership Conference and contacted a number of legislators at times throughout the year.

As President of the Medical Care Foundation, I am serving on the Board of the Medical Review of North Carolina, our new South Carolina PRO.

The death of several members in our district has been noted and appropriate letters from the South Carolina Medical Association were written to families of these deceased members.

It is an honor and privilege to serve as Trustee of the Fourth District.

Respectfully submitted,
William J. Goudelock, M.D., Trustee

TRUSTEE REPORTS

FOURTH MEDICAL DISTRICT (METROPOLITAN)

The 1988-1989 year has gone well for the SCMA. Memberships both in the general member classification as well as SOCPAC have increased. The SCMA's efforts to monitor health legislation and to work to improve the health of South Carolina citizens has continued. In my opinion, our administrative staff is working well to accomplish these goals. In particular, efforts have been made for quick responses by the SCMA to pertinent media reports. Also, SCMA has established a working relationship with our new PRO.

The SCMA subsidiaries continue to function well in providing continuing medical education and insurance benefits through the SCMA Members' Insurance Trust and SCIMER.

Particular areas of recent importance have been our successful efforts to modify our tort system and to help advise our citizens on issues concerning toxic and infectious waste. The successful "Personal Care" program has received a great deal of positive publicity and provides a needed service for the citizens of our state who have an annual income below 150 percent of poverty.

Personally, it has been my pleasure to serve on the SCMA Health Education Van Committee. Under the guidance of Betsy Terry and Madge Littlejohn, this endeavor has been successfully completed and should be available to the citizens of our state at the time of our Annual Meeting.

Respectfully submitted,
James B. Page, M.D., Trustee

FIFTH MEDICAL DISTRICT

The past year has again been a busy one both for me and for the SCMA. Unfortunately, my personal schedule has conflicted with the SCMA schedule several times, and I have not been able to attend all the board meetings. Likewise, although I was able to attend a portion of the Board Retreat at Hilton Head, my schedule forced me to miss part of it.

I have been able to attend several meetings of the Lancaster County and Fairfield County Medical Societies as well as those in York County. The York County Medical Society was fortunate to

have our current president, Dr. Thomas Rowland, Jr., as well as our Executive Vice President, Bill Mahon, address a monthly meeting.

The efforts of the board as well as SCMA membership in effecting changes in the PRO have been noteworthy. I believe it shows how effective organized medicine can be when a united front is presented.

This is the second year of my second two-year term on the Board of Trustees. As mentioned in the first paragraph, my schedule this year has not allowed me to participate as actively as I would prefer. Since next year looks to be a repeat, I feel it in the best interest of the SCMA to have a different trustee from the Fifth Medical District next year. I do, however, want to thank the members of this district for allowing me to serve as their representative during the past four years and pledge my support to the new trustee chosen.

Respectfully submitted,
Terry Dodge, M.D., Trustee

SIXTH MEDICAL DISTRICT

This is my first year on the Board of Trustees of the South Carolina Medical Association. I have been very impressed by the quality of the work that the board performs. I believe we are all being well-served by our leadership and staff.

I have been able to visit my component medical societies and have noted there have been many questions concerning Medicare/PRO/Medicaid issues and a reasonable amount of discussion about the AMA's RCT proposal.

I have sent the county medical society presidents and SCMA House of Delegates from each county brief written summaries of the Board of Trustee meetings and these reports seem to have been well-received.

I have enjoyed serving and wish to thank the delegates for their support.

Respectfully submitted,
Stephen A. Imbeau, M.D., Trustee

EIGHTH MEDICAL DISTRICT

At the 1988 South Carolina Medical Association meeting in Charleston, my colleagues from the

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Eighth Medical District did me the honor of re-electing me to a third term as their representative on the SCMA Board of Trustees.

In that position, I have attended all board meetings except the Retreat at Hilton Head. Scheduling difficulties prevented my attendance there. I have also attended meetings of the Maternal, Infant and Child Health Committee of the SCMA as their liaison member.

In addition to the above, I, as president of the S. C. Chapter of the American Academy of Pediatrics, have attended all of their meetings. In my Annual Report last year, I stated that I thought that two of the most important issues facing our organization in the coming year would be attempting to have Metrolina replaced and passage of a vaccine injury bill. I am happy to say that Metrolina has been replaced by Medical Review of North Carolina and that the SCMA will submit a vaccine injury bill for consideration by the Legislature when the AAP approves one of the two bills now pending. Most of you are aware of the other measures of Tort Reform that the leaders of the SCMA were able to bring about. Those of you who were not familiar with the Charitable Immunity Act should investigate its provisions. It would be time well spent. In the Eighth District, all county leaders have been contacted, delegates and alternate delegates' names secured and submitted, and visits by the president of the SCMA to local societies scheduled.

As a member of the Board of the SCMA Mem-

bers' Insurance Trust, I am proud to have been a part of the expansion in membership of that organization and also of the expansion of benefits to its members. I have attended all meetings of the MIT Board.

It has been my pleasure as the representative holding your seat on the SCMA Board of Trustees to furnish several newsletters to the leaders of the various county medical societies regarding the problems faced by the board and the actions taken by the board.

Many new problems will face the board in the coming year, including effecting a smooth transition to Medical Review of North Carolina, pushing a vaccine injury bill through the Legislature (it is to their benefit as well as ours that a bill be passed because of the enormous cost to the state for vaccine otherwise), and the constant guarding against encroachment by third, and sometimes fourth parties, in the practice of medicine.

In April I will begin my final year on the board (I am not eligible for reelection in 1990), and I wish to thank my colleagues from the Eighth District for the honor of serving the maximum time allowed by our by-laws. You are well-represented by the SCMA and board officers who spend untold hours in representing you in matters of medicine. I pledge my continued best in representing the Eighth District during the next year.

Respectfully submitted,
John W. Rhene, Jr., M.D., Trustee

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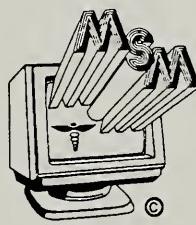
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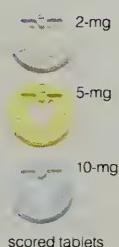
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COMMITTEE REPORTS

ADVISORY COMMITTEE TO THE SOUTH CAROLINA DEPARTMENT OF VOCATIONAL REHABILITATION

The South Carolina Medical Association Advisory Committee to the South Carolina Department of Vocational Rehabilitation met on February 21, 1989, at the Sheraton Northwest in Columbia. Dr. Ben N. Miller, Chairman, presided. Members of the committee present were: Dr. Alec Brown, Columbia; Dr. Edward E. Kimbrough, Columbia; Dr. Woodrow W. Long, Jr., Greenville; Dr. James E. Padgett, Jr., Columbia, representing DHEC; Dr. James F. White, Columbia and Ms. Barbara Whittaker, Columbia, representing the South Carolina Medical Association.

Vocational Rehabilitation was represented by Mr. Joe S. Dusenbury, Commissioner; Mr. Preston Coleman, Assistant Commissioner—Administrative Services; Mr. Walter J. House, Client Services Consultant; Dr. Paul G. Knight, Assistant to the Commissioner for Client and Psychological Services; Mr. Anthony S. Langton, Jr., Project Director; Mr. Charles LaRosa, Assistant to the Commissioner; Mr. David C. Lever, Supervisor Comprehensive Programs; Mr. Gregory W. McGrew, Engineering Associate; Mr. Edward H. McMillion, Director, Staff Development and Training; Mr. Wayne Nance, Quality Assurance Analyst, Disability Determination Division; Mr. Richard A. Vandiver, Director, Disability Determination Division; and Dr. James H. Weston, Physician, Disability Determination Division.

Dr. Ben N. Miller welcomed the members of the Advisory Committee and stated that it was a sacrifice for everyone to get together, but it is essential for rehabilitation and the liaison for the medical and dental profession to the agency. He asked that the members enter into the discussion during the meeting.

Mr. Anthony S. Langton, Jr., Project Director, was presented and he stated that at present there is a five-year grant project that is designed to look into the delivery of technology related systems versus disability in the state of South Carolina. This program is involved with all agencies for early intervention programs from ages one or two to older adults. Technology and technology re-

lated devices information is made available to those who have disabilities. This is being coordinated through Vocational Rehabilitation and various school systems. The staff is involved in looking at how technical assistance can be provided to key agencies. The grant provides for the setting up and giving information on assistive aids and devices and how to utilize research reports. He stated that a newsletter would be put out in approximately two weeks with information related to the assistive devices. There have been two training workshops: one dealt with adaptive driving and vehicle modifications for spinal cord injuries and the other with how to accommodate severely disabled persons in the work-site. The staff will work with school systems, facilities and hospitals in providing technology resources to disabled persons. The grant has been in operation for approximately one year and at this point the staff is ready to respond to information requests by providing technical assistance. At present, we are working with the Medical University of South Carolina, University of South Carolina and Clemson University. This program is not restricted to working with Vocational Rehabilitation clients but will reach out to the disabled of the state.

Mr. Gregory W. McGrew, Engineering Associate, was introduced and he stated that he is with the Department of Vocational Rehabilitation and as such works strictly with the Vocational Rehabilitation clients. He acts as a rehabilitation technology problem solver for Vocational Rehabilitation clients. Over the past one and half years, the program has been involved in job accommodations which will enhance the employment of clients in specific jobs. An example is a client with a back injury who works in a sewing factory is only able to work part-time because she is unable to tolerate the pain brought on by the injury. A simple type of seating adaptation and adjustment of the chair or adjustment of the height of the pedal on the sewing machine can be made to accommodate the client enabling her to continue in employment. Sometimes the problem

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solving involves evaluation of the problem and identifying the available type of devices to address the problem. The goal, when Vocational Rehabilitation works with clients, is to make the clients competitive.

Mr. McGrew is also involved in home accessibility. Clients often need information regarding what can be done to their home to allow them access to the bathroom, etc. Upon request, Mr. McGrew will go into the home and do a home accessibility evaluation and give this information to the vocational rehabilitation counselor so that he may discuss this with the client and make whatever modification possible. Health maintenance is also an area in which the rehabilitation engineer is involved. This includes adaptive devices for clients with problems with upper and lower extremities where lateral pads would be of benefit.

Mr. Richard A. Vandiver, Director, Disability Determination Division, was introduced and stated he had five areas he wanted to mention as follows: 1) The courts have been involved with issues of physical examination obtained in connection with the disability process. The courts feel that the treating physicians are to be the primary source for those examinations. The division is in agreement with this decision due to the fact that the treating physician provides the best source of information since he or she has the historical background in which to relate current findings. 2) The courts have also insisted that the disability program ask for the findings of the treating physicians in the context of work-related activities. The physician must relate to the functional limitations that the impairment causes in order for the division to apply it to the disability law. 3) Pain is an issue that Congress has insisted that SSA and the Disability program, throughout the country, incorporate more into the disability decision. There are procedures that allow more historical information about the way the claimant's pain may affect his daily activity or his ability to work. With this information the division has been able to actually bring in pain as an issue in making a disability decision more so than in the past. The medical profession was encouraged to continue to provide evidence about how pain affects the claimant in his ability to walk or engage in daily activity. 4) The fee schedule is another area in which the department is sensitive and is trying to be competitive with other programs in the state

and region. It was pointed out that there have been some substantial cuts in the amount of money available to purchase medical evidence, examinations and historical evidence, etc. It was asked that the medical profession bear with the department during the lean times because everything possible is being done to stay within a reasonable financial situation. The fees in certain areas are being reviewed and changes are being made where possible. 5) There is a mandate from Social Security to regional offices that a continuing medical education program be implemented. This program will be for treating physicians.

Mr. Vandiver thanked the medical profession in the state and stated that without their help they could not have been as successful.

Mr. Joe S. Dusenbury, Commissioner, stated that this has been an exciting year for Vocational Rehabilitation and that he expects the future to be just as exciting.

At this point the meeting adjourned for dinner and continued comments and questions. There being no further discussion or business, the meeting was adjourned.

Respectfully submitted,
Ben N. Miller, M.D., Chairman

AGING AND MEDICARE

The SCMA has been active in Medicare issues this past year. Representatives of the SCMA Board of Trustees visited our Congressional delegation in Washington to discuss problems with existing Medicare laws, including mandatory assignment for lab work, medically unnecessary letters, and MAAC's. Discussions were also held with William Roper, MD, of HCFA, regarding HCFA's implementation of these requirements, Explanation of Medical Benefits (EOMB) wording, and HCFA/carrier/physician relationships.

The SCMA's Personal Care program was modified this year to include financial guidelines of 150% of poverty and the participation of the county aging providers. Much positive press was attained as a result of this program.

SCMA staff continues to assist our members and their office staffs with Medicare problems and questions. Each month's newsletter in *The Journal of the South Carolina Medical Association* has included important Medicare information.

COMMITTEE REPORTS

The SCMA's CME Committee has included in this year's Annual Meeting a workshop on "The Geriatric Patient" which will address the topics of "Management of Pressure Sores in the Nursing Home Environment," and "Rheumatic Diseases in the Geriatric Population," as well as a presentation on RBRVS.

Because the SCMA Board and staff have done such an excellent job in addressing Medicare issues, our committee met following the SCMA Leadership meeting in order to identify the most effective role for us. Various possibilities were discussed and it was concluded that SCMA Board advice was needed.

At this time, we will await board direction with the assurance that our committee stands ready to assist the SCMA in Medicare and aging issues.

Respectfully submitted,
William R. Griffin, M.D., Chairman

work and dedication of committee members who attended meetings regularly, participated in an accreditation workshop and travelled throughout the state on site visits. It is also a tribute to the SCMA leadership and Board of Trustees for their support and faith in our efforts.

The committee has been busy in other areas, as evidenced by the scientific sessions planned for this year's Annual Meeting. We feel we have again put together an outstanding schedule of learning opportunities and hope that each of you takes advantage of as many hours of attendance as your schedule will permit. We have a record number of specialty societies participating with scientific sessions this year—a total of eight, and the American Diabetes Association, S. C. Affiliate, as well.

I would like to take this opportunity to thank the members of the committee for their hard work and the members of the SCMA for their continued support.

Respectfully submitted,
O'Neill Barrett, Jr., M.D., Chairman

CONTINUING MEDICAL EDUCATION COMMITTEE

Since the last report of this committee to the SCMA House of Delegates, we have fulfilled a goal towards which we have been striving for the last two years. I am pleased to report that following a site visit by two members of the Committee on Review and Recognition of the Accreditation Council for Continuing Medical Education, the SCMA has received full accreditation for a three-year period as the accrediting agency for intra-state sponsors of CME in South Carolina.

The SCMA was commended for the CME Accreditation Manual which was developed over the past two years, and for the quality of our accreditation forms and related documents.

In the latter part of 1987 and during 1988, our committee completed site visits of those institutions and organizations whose overall programs had previously been accredited by the SCMA. All were reaccredited. In addition, the committee issued provisional accreditation to two new CME programs, one at St. Francis Hospital in Greenville and one at Roper Hospital in Charleston. These recent provisional accreditations brought the total accredited by the SCMA to seven hospitals and one medical society.

What this committee has accomplished over the past two years is a direct result of the hard

LEGISLATIVE ACTIVITIES COMMITTEE

Mr. Speaker, members of the House of Delegates, SCMA members and guests, it is my privilege to report to you on the activity of the Legislative Activities Committee this past year.

The committee's primary function is to review proposed legislation and recommend a position to the Board of Trustees of the Association. Prior to the opening of the current legislative session, the committee met and considered legislation to be introduced by the SCMA as well as issues expected to be introduced by others.

The committee, in response to previous House of Delegates actions, recommended that legislation be introduced (1) to require DHEC to regulate tanning facilities; (2) to require insurers to give notice of any limitations or access to physicians or hospitals in health insurance policies; (3) to limit liability for bad results from vaccines required by law to be administered; (4) to require preadmission review to be done by a South Carolina licensed physician or nurse; (5) and to provide for a privilege to protect confidences between patients and physicians.

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The committee discussed various legislative efforts expected by others. The committee recommended opposing bills, if introduced, in the following areas: (1) mandatory insurance benefits for chiropractors; (2) limits on physician dispensing of drugs; (3) optometric use of therapeutic drugs; (4) mandatory assignment of Medicare claims; (5) mandatory generic drug substitution; and (6) changes in the nurse practice act which would adversely affect the licensing of nurses.

The committee discussed the issue of infectious waste treatment and decided that the only area that needs to be addressed is the adoption of a precise definition. Additionally, the committee discussed the need for protection of data collected under the Medically Indigent Assistance Act and in conjunction with infant mortality review programs within DHEC.

The SCMA Doctor of the Day program continues to be a valuable service to the Legislature and to SCMA. The committee is grateful to those of you who donate your time to serve.

On behalf of the committee members and myself, I would like to thank you for the opportunity to serve on this very important committee.

Respectfully submitted,
James R. Pruitt, M.D., Chairman

MATERNAL, INFANT AND CHILD HEALTH COMMITTEE

Our committee adopted a new name this year, having formerly been called SCMA Perinatal and Maternal Health Committee, in order to better serve the children of our state. Because there was no SCMA committee to address issues pertaining to children, we agreed to expand our committee responsibilities to include child health issues.

This was also the first year for us to serve as chairmen of this committee and we are both grateful to the former co-chairmen, Tom Austin, M.D., and Hal Rubel, M.D., for their assistance. Patricia Healy and Barbara Whittaker of the SCMA staff have also greatly helped us fulfill our duties.

We are proud of our accomplishments this year which include:

- a special issue of *The Journal of the South Carolina Medical Association* which was devoted to Adolescent Pregnancy in South Car-

olina. (July, 1988: Guest Editors—Sam Elhasani, M.D.; Thomas Hepfer, M.D.; and Hal Rubel, M.D.);

- input into DHEC's proposed fetal mortality review;
- input into DHEC's proposed regulations for Level I, II, and III OB and nursery services;
- preparation, distribution, and analysis of a joint SCMA/DHEC survey mailed to all S. C. physicians who provide obstetric care regarding problems with access to prenatal care;
- discussions with the State Health and Human Services Finance Commission regarding OB and pediatric reimbursement with increases in reimbursement and pediatric minicode book prepared as a result of these discussions; and
- support of DHEC testing of Hepatitis B for prenatal patients and newborns.

The obstetricians of the committee were asked to meet with representatives of the South Carolina Hospital Association, staff of the Joint Legislative Health Planning and Oversight Committee, and staff of the Division of Research and Statistical Services Division of the Budget and Control Board in order to discuss rates of Caesarean sections.

Other members of the committee served on a special task force created by Mike Jarrett, Commissioner of DHEC, to study the prenatal access problems in the state. Some members served on the Governor's Maternal, Infant, and Child Health Committee.

We continued to review maternal mortalities and continued to serve as a forum for coordination of medical concerns relating to maternal and perinatal health and now children's health in the state.

Respectfully submitted,
Alexander R. Smythe, II, M.D.,
Co-Chairman
B. C. Pendarvis, Jr., M.D.,
Co-Chairman

MEDIATION COMMITTEE

The Mediation Committee of the SCMA met in March to review the pending complaints filed with the committee.

Twenty-two complaints came to the Mediation Committee from April 1988 to April 1989. Of this

COMMITTEE REPORTS

number, six were non-members of the SCMA; (the committee has no jurisdiction in these cases, but urged the physicians to join SCMA); six are pending at the local level; one was withdrawn; and nine were resolved at the local Grievance Committee meeting.

The committee compliments the very efficient and active Grievance Committees of the component medical societies, who are capably handling complaints that come under their jurisdiction.

I wish to thank the committee members and the SCMA staff for their support this past year.

Respectfully submitted,
Albert G. LeRoy, Jr., M.D., Chairman

MEDICAL ETHICS COMMITTEE

I would first like to express my appreciation to the House of Delegates for your support of our committee's efforts as demonstrated by your adoption last year of the "Principles of Medical Ethics of the South Carolina Medical Association" and the ethical statements on "AIDS and Sero-positive Patients and Physicians." At this year's Annual Meeting, the Medical Ethics Committee and SCIMER have arranged for Nancy Dickey, M.D., to be the Leonard Douglas Memorial speaker and a workshop leader.

The committee has remained quite active. We have invited a panel of non-physician medical ethicists to serve as consultants to our committee, and we are thankful for their input. These consultants are: Nora Bell, Ph.D., Albert Keller, Ph.D., Stuart Sprague, Ph.D., and Douglas McDonald, Ph.D. With the assistance of our consultants, the committee presented a lunchtime discussion on "The Role of Medical Ethics in Our Identity" at the SCMA's January 1989 Leadership Conference. We are also planning a discussion for the September Trustees, Administrators, and Physicians' Meeting which is cosponsored by the South Carolina Hospital Association, South Carolina Medical Association, and South Carolina Association of Hospital Governing Boards.

Our ongoing endeavors include: preparation of an article for submission to *The Journal of the South Carolina Medical Association* on the SCMA's Principles of Medical Ethics; physician dispensing; the ethical issues pertinent to a physician as a witness in various legal proceedings;

justice and indigent care; and a *Journal* update on living wills now that the S.C. law has been amended.

Presently, we are reviewing the recent opinions from the AMA's Council on Ethical and Judicial Affairs regarding: post operative care, age-based rationing of care, anencephalic infants as organ donors, advertising and publicity, gene therapy and surrogate mothers.

Although we have a busy agenda, we welcome suggestions from the SCMA membership as to other areas for the committee's study.

Respectfully submitted,
Donald Saunders, M.D., Chairman

MEMORIAL COMMITTEE

This year it is just and proper that our medical association stop its business at this time and pay honor and tribute to our fellow physicians who have deceased since we last met. They belonged to the great fraternity of practitioners of medicine—the greatest fraternity in the world. These men and women performed their art, lived with honor and respect, served others in many ways within their communities. Success has been defined as follows: "He has achieved success who has lived well, laughed often, and loved much; who has gained the respect of intelligent men, and the love of little children, filled his niche, accomplished his task and left the world a better place in which to live." I submit to you that these were successful men and women. After I have read their names, we will stand for a moment of silence: Warren S. Smith, M.D., Walterboro; Roland W. Penick, M.D., Greenville; Stanley I. Coleman, Sr., M.D., Greer; John T. Davis, Sr., M.D., Walhalla; William H. Johnson, M.D., Loris; Thomas Rucker Gaines, M.D., Anderson; Paul Watson, Jr., M.D., Columbia; Edgar Eugene Jones, II, M.D., Mt. Pleasant; Thomas Michael Essman, M.D., Simpsonville; Ralph P. Baker, M.D., Newberry; Joseph I. Hoffman, M.D., Charleston; William W. Vallotton, M.D., Charleston; Hilla Sheriff, M.D., Columbia; Robert M. Dacus, Jr., M.D., Greenville; J. Douglas Balentine, M.D., Charleston; Robert W. Leonard, M.D., Spartanburg; Charles R. Griffin, M.D., Pendleton; Joseph L. Goodman, M.D., Mt. Pleasant; D. Lesesne Smith, M.D., Spartanburg; Ira Barth, M.D., Marion; Norris James Knoy,

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M.D., Bamberg; Abraham Max Robinson, M.D., Columbia; Leroy Beattie Dennis, Jr., M.D., Bishopville; and William Hayne Folk, M.D., Spartanburg; William Amspacher, M.D., Greenville; Henry Russell Ennis, M.D., Camden; James Ravenel Cain, M.D., Columbia; Oliver M. Kirkland, M.D., Spartanburg; Benton M. Montgomery, M.D., Newberry; and W. W. King, Sr., M.D., Batesburg.

Respectfully submitted,
R. Rion Dixon, M.D., Chairman

MENTAL HEALTH COMMITTEE

Mr. Speaker, members of the House of Delegates, SCMA members and guests, it is my privilege to report to you on the activity of the Mental Health Committee this past year.

The Mental Health Committee met on September 28, 1988. The committee recommended support of legislation establishing privileged communications between patients and physicians in the treatment of mental and emotional conditions. The committee reviewed proposed legislation regarding involuntary commitment procedures for

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children; mental health patient's rights; and transportation of mental health patients. The committee discussed the need for more nursing home beds to relieve the problem of inappropriate admissions to Crafts-Farrow and to insure availability of beds there when needed.

In addition to legislative activities, the committee renewed its request to SCMA to sponsor seminars on treating trauma victims and encouraged SCMA to collect data on the amount of charitable care given by physicians in the categories of (1) direct care and (2) community service.

Physicians on the committee have been responsive to changes in the approach to mental health care and have been willing to testify before legislative committees in response to bills affecting that care.

Respectfully submitted,
Richard K. Harding, M.D., Chairman

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OCCUPATIONAL MEDICINE COMMITTEE

The SCMA Committee on Occupational Medicine held quarterly meetings during 1988. *The Schedule of Fees for Physicians and Surgeons for Services Rendered under the South Carolina Workers' Compensation Law* was not revised and reprinted during the year, but many deletions and additions were evaluated to conform with changes in the 1988 *CPT Manual*. Many hours were contributed to this effort by all members of the committee.

Physicians' fees which seemed inappropriate to the Medical Department of the Industrial Commission were reviewed at each meeting, and recommendations were made to the commission on an individual case basis.

The committee hosted a dinner meeting with the commission during the year. As usual, this meeting prompted very frank and very productive discussions of our mutual problems and concerns relating to providing the best possible medical care for South Carolina's injured workers at the lowest possible cost.

Members of the committee participated in the planning and presentation of two educational seminars sponsored by the commission during the year. Both seminars were well attended and very worthwhile.

The committee has been hard at work over the past two years trying to get the South Carolina Workers' Compensation Commission to increase fees paid to physicians who treat injured workers. The last fee increase was three years ago. The SCMA Board of Trustees commissioned Ernst and Whinney to study the fee problem and make recommendations to the SCWCC and the committee. The committee is happy to report that the SCWCC has approved a compromised increase in the Fee Schedule which will go into effect April 1, 1989.

In summary, 1988 was another busy year for the committee in fulfilling its role as liaison between the South Carolina Medical Association and the South Carolina Workers' Compensation Commission, as well as a resource group to the commission as it attempts to fairly administer the Workers' Compensation Law of the State of South Carolina.

Respectfully submitted,
Marion F. McFarland, III, M.D., Chairman

PEER REVIEW COMMITTEE

The Core Committee of the Peer Review Committee met once during the past year in order to conduct a rehearing of a previous review which we had performed under contract with the State Health and Human Services Finance Commission.

Individual specialist members of our committee provided advice on coverage disputes between SCMA members and insurers under the committee's auspices.

The new PRO, Medical Review of North Carolina, offered our committee the opportunity to serve as the South Carolina Review Committee. We recommended to the SCMA Board of Trustees, who supported our decision, that we would better serve our members in an oversight and monitoring role with specific review and criteria development performed directly by representatives of the S. C. Specialty Societies.

We welcome referrals from SCMA members for committee assistance in disputes with insurers.

Respectfully submitted,
Edward L. Proctor, M.D., Chairman

PHYSICIANS ADVOCACY AND ASSISTANCE COMMITTEE

The committee has been quite active this past year. There have been a number of contacts with physicians with impaired function and a number of interventions by committee members resulting in treatment and contractual arrangements with impaired physicians. A significant number of physicians who have been under contract and monitored by the committee have completed their term of supervision and have had their contracts closed by the committee. Some of the physicians who have completed their contracts have become active members of the Physicians Advocacy and Assistance Committee. The commit-

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tee has also been instrumental in influencing some of the physicians with whom we have been working to become members of the SCMA.

The chairman met with the Board of Trustees at the SCMA's Annual Meeting in Charleston, April 1988. The purpose was to inform the board of the activities of the committee and to ask that the name of the committee be changed to Physicians Advocacy and Assistance Committee due to the stigma of Alcohol, Drug Abuse and Impaired Physicians Committee. The board approved the name change. The chairman also met with the Board of Trustees in January 1989.

The board once again approved a budget for the Physicians Advocacy and Assistance Committee.

The part-time lab professional is doing an outstanding job in the collection of urine screens.

The regional treatment teams continue to be very active and continue to work with their peers as an advocate. There are active Caduceus Club physician groups in Charleston, Greenville-Spartanburg, and Columbia areas and plans are going forward for the establishment of such a group in the Florence area to serve the Pee Dee section.

At the request of the Members' Insurance Trust, the committee developed criteria and guidelines for the evaluation of treatment centers for physicians impaired by alcohol or other substance abuse. These criteria have been distributed to the centers and to the Members' Insurance Trust for their use in the implementation of its insurance program.

The chairman has met with the State Board of Medical Examiners twice during the year enhancing the dialogue between the Board of Medical Examiners and the committee.

The executive director of the State Board of Medical Examiners met with the committee for discussions of confidentiality.

The committee is working on a special issue of *The Journal* dealing with chemical dependencies. The committee is striving toward a July 1989 issue.

The chairman attended the ninth Annual Impaired Health Professionals Conference which was held October 26-30, 1988 in Chicago.

The committee has developed dialogue with the University of South Carolina School of Medicine and its Peer Advocacy Committee. It is hoped

that in the coming year dialogue will open with the Medical University of South Carolina's Peer Advocacy Committee.

I wish to thank the Board of Trustees, the committee members and the SCMA staff for their support and work this past year.

Respectfully submitted,
Hugh V. Coleman, M.D., Chairman

PUBLIC RELATIONS COMMITTEE

Public Relations activities were carried out during 1988-89 with the committee's approval of the staff proposed plan. Highlights for the year include the following: 1) publicity on the amount of charitable care provided by physicians; 2) publicity on the SCMA's expanded "Personal Care" program which was designed to assist non-participating physicians under Medicare better serve their Medicare patients; 3) publicity on the SCMA/SCMAA/SCIMER and Department of Education's health education van; 4) the development of a new membership recruitment poster; 5) conducting a media workshop at the annual Leadership Conference; 6) publicity on hazardous waste issues; and 7) publicity on health hazards of tanning booths.

Staff has taken a more proactive stance with the media this past year on the topics mentioned above as well as with other topics including but not limited to problems with Medicare, chiropractors, tort reform, the AMA's proposed Registered Care Technologist program, the PRO, teen pregnancy and healthy lifestyle issues. Staff has continued working for increased coverage in *AM News*, assisting medical reporters on a weekly and often daily basis, providing timely information via "SCMA Newsletter," expanding the SCMA Library including the audio/video loan service, and scheduling physician speakers for interested groups of organizations.

Staff has worked with several specialty societies and committees on publicizing issues of concern and has also worked with the medical student sections in their endeavors to provide AIDS education in the public schools as recommended by the AMA. The SCMA participated in the red ribbon campaign to promote a drug-free society

COMMITTEE REPORTS

in addition to joining the AMA's initiative for a smoke-free society by the year 2000. We participated in public relations activities conducted by the Highway Safety Office.

News clips on topics of interest and concern have been regularly distributed to board members. House of Delegates and Board of Trustees position statements since 1972 are being compiled for distribution later this year.

The committee continues to offer annual awards for journalists exemplifying outstanding reporting in the field of medicine. An award is presented in each category of print, radio and television media.

The Public Relations Committee is pleased with the quantity and wide-spread distribution of interest in association activities from media throughout South Carolina. We expect to continue with our proactive relationship with the media and look forward to good things happening in the future. The committee encourages SCMA members to consult our public relations staff for advice and assistance in conducting PR activities on the local level. Your comments and recommendations are welcomed by staff.

Respectfully submitted,
Thomas C. Rowland, Jr., M.D., Chairman

SCMA/JUA PHYSICIANS RISK MANAGEMENT COMMITTEE

This has been a good year for the Physicians Risk Management Committee. We have had outstanding success in our court cases involving medical liability. We continue to have great support for our programs from physicians and others over the state. Two Risk Management workshops were presented at the SCMA Annual Meeting last April and one is planned for the meeting in April 1989.

South Carolina hosted the Annual Meeting of the National Board of Medical Joint Underwriting Associations in September at Kiawah Island. Our committees' efforts were highlighted during the meeting and we were particularly pleased by the kind remarks made by Dr. Tommy Rowland when he addressed the meeting.

The highlight of our year has been the preparation and publication of the special January issue of *The Journal of the South Carolina Medical Association* which was devoted entirely to professional

liability matters. This journal represents a milestone for our committee, the Professional Liability Committee and the SCMA. It will serve as a permanent record of the purposes, the accomplishments to date and the future projections for the PRMC. It is also a tribute to the concerted efforts of many folks in South Carolina.

We take some measure of credit in the fact that the JUA board has advised that there will be no premium rate increase for the second year in a row. Our intentions and our goals are to continue our efforts to lower the medical liability risks in our state as we maintain our campaign for effective risk management with all South Carolina physicians and their staffs.

I want to express my appreciation for the dedication and hard work by each of our committee members and for the efficient and effective help given us by Joy Drennen who serves as our staff support, the editor of our bulletin and our valuable adviser.

I would also like to acknowledge the superb support we get from Cal Stewart and from Dr. Bill Cantey who continues to provide excellent preliminary chart review for us and contacts with our area chairmen.

The committee plans to continue our efforts to stress effective risk management and to impact more and more favorably on medical liability in South Carolina.

It has been a pleasure for me to continue to serve as chairman of this very important committee.

Respectfully submitted,
Euta Colvin, M.D., Chairman

PRIMARY CARE/MEDICAID AND INDIGENT CARE COMMITTEE

Problems associated with primary care, especially in rural areas, the lack of health insurance for the indigent, and changes in the Medicaid program which are designed to address these problems, have received much attention during the previous year at both the state and federal level. Our committee has reviewed national recommendations such as those developed by the AMA as well as existing programs and plans which have been developed in our state.

One of our primary efforts has been to support the expansion of the state's Medicaid budget.

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With a \$3:\$1 federal to state match, there is no more cost effective way for South Carolina to seek to improve health care than through the Medicaid program. The Finance Commission, under the direction of Andy Laurent, Ph.D., and through our liaisons, Bob McRae and Kathi Peebles, has been receptive to all our suggestions and even our complaints. The commission is to be thanked for the efforts to restore and improve physician reimbursement and for addressing our billing and audit concerns. Any physician who claims he does not accept Medicaid because of the red tape should re-examine this decision. Our committee and the Finance Commission will assure that if you encounter any bureaucratic problems, we will personally address them.

Barbara Whittaker of the SCMA staff maintains close communication with the Finance Commission both on general policy matters and in response to specific questions from physicians and their office staffs. Gavin Appleby, M.D., continues to provide a physician's viewpoint into Medicaid decisions as the Medical Director of the Finance Commission.

Special guests to our committee this past year included Andy Laurent, Ph.D., Executive Director of the Finance Commission. Dr. Laurent also spoke at the SCMA Leadership meeting about the millions of dollars that the federal catastrophic health care law will cost in the state's Medicaid budget. Other guests to our committee were Murray Vincent, Ed.D., and Charles Johnson, MSPH, who spoke to us about the successful project in Bamberg County to reduce unintended adolescent pregnancy. We were appreciative of the success of this program and expressed our support of other pilot programs similar to this. A. Baron Holmes of the State Budget and Control Board also attended this meeting of our committee, and we enjoyed the opportunity to hear the types of alternatives being discussed at this level of state government.

We hope that the upcoming year will be as successful as this past year in improving primary, indigent, and Medicaid care in this state.

Respectfully submitted,
Benjamin E. Nicholson, M.D., Chairman

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REPORT OF THE EXECUTIVE VICE PRESIDENT

The year 1988 has been a particularly significant one for the South Carolina Medical Association. The increased interest of the physicians of our state in organized medicine has swelled membership in the SCMA to a new high. The membership year ended with a total of 2,772 active members (as compared to 2,631 in 1987), 100 new members, 279 honoraries, 160 residents and 295 students—for a grand total of 3,606!

SOCPAC mirrored this growth, with a total of 1,012 members, an increase of 252 over 1987. In the General Elections in November, 88 per cent of the candidates supported by SOCPAC were successful in their races. One race of particular note was the House District 114 primary race where two Republicans, incumbent John Bradley and challenger John Rama, squared off. SOCPAC encouraged Mr. Rama to run and sent him to an AMPAC candidate school which proved very beneficial later in his campaign. With significant financial support provided by SOCPAC, Mr. Rama was successful in winning the seat from Mr. Bradley who had held it since 1975.

The 1988 legislative session was successful as well. The South Carolina Tort Reform Bill was passed, reducing the statute of limitations on minors by seven years; increasing the standard of evidence of punitive damage awards; retaining contributory negligence; providing for attorney's fees for frivolous lawsuits; and establishing the South Carolina Contribution Among Tortfeasors Act. Coverage was obtained for state-employed physicians under the SC Tort Claims Act, and the Charitable Immunities Act was amended to make clear that all charitable medical care is immune from liability except where gross negligence or willful misconduct can be proven.

Another measure of the success of our legislative activities is the fact that not a single bill opposed by the SCMA got out of committee for debate or a vote on the floor of the House or Senate. The credit for this goes to our expanded legislative staff and the increased participation in the PAC. I would encourage those of you who are not SOCPAC members to join so that we may become even stronger in the political process in the state.

We are now in the first year of the 108th General Assembly and are faced with a number of

issues aimed at altering the way medicine is currently practiced in the state. We expect to see bills introduced which will seek independent practice by physical therapists, mandate health insurance coverage for chiropractors, forbid dispensing of drugs by physicians, approve the use of therapeutic drugs by optometrists, change the definition of the practice of nursing to eliminate physician direction, and the list goes on and on. Try to imagine where the profession would be if the SCMA were not present at the State House looking after your interests. Chances are you would hear about most of these things after they were law and too late to do anything.

For the first time in its history, the SCMA adopted a Code of Ethics of its own, in the past having relied on the Principles of Medical Ethics of the American Medical Association. The new SCMA Ethics Committee is to be commended on its dedication to the formulation of this important document.

Hard work by the SCMA Task Force on AIDS, with input and assistance from the Ethics Committee, resulted in the development of AIDS policies which were subsequently adopted by the House of Delegates.

SCMA publications were in the spotlight, with the new *Physicians' Guide to South Carolina Law* being furnished to all members and receiving many favorable comments on its usefulness. The special issue of *The Journal* on teenage pregnancy in South Carolina was so widely circulated that the supply of extra copies was completely exhausted. Efforts of the SCMA to address the many problems of inadequate prenatal care included not only information in this special issue, but also a survey of the state's physicians in conjunction with DHEC, with regard to their prenatal patient load.

The cooperative efforts of the SCMA, SCMA Auxiliary, SCIMER and the Department of Education have resulted in the purchase of a Health Education Van for use in educating the students (K-12) regarding more healthy lifestyles. At the time this report is being written, the van is in Chicago being equipped with three-dimensional portable exhibits for use by the Department of Education health educators in conducting classes for school children. The van will also be available

REPORT OF THE EXECUTIVE VICE PRESIDENT

after school hours for use by county medical societies, auxiliaries, private schools and other groups.

With regard to SCMA concerns over the environment, particularly toxic waste, the House of Delegates continued to endorse an end to the acceptance of out-of-state toxic waste in South Carolina and the potential health hazard of the Pinewood landfill. A Task Force established during the summer was charged with carrying out the directives of the House. The SCMA Task Force developed 14 recommendations which were presented to the DHEC Board. Included in the recommendations were the creation of a Division of Waste Reduction, a study to determine the feasibility of state ownership of all disposal facilities and a ban on expanded or new incinerators.

The SCMA Committee on Continuing Medical Education continued its efforts in 1988 to receive full accreditation by the Accreditation Council on Continuing Medical Education. The committee was notified in mid-November that those efforts had been successful, and the committee was commended by the ACCME for having fulfilled all directives given two years ago.

The 1988 House of Delegates directed the SCMA leadership to "seek any and all means to have the current PRO replaced by another PRO" and this directive was successfully carried out. The PRO contract for South Carolina was awarded to Medical Review of North Carolina (MRNC) which now is the PRO for both Carolinas. The early months of the new PRO's operation have been vastly different from the same time period with the previous PRO. MRNC has two South Carolina physicians on their Board of Directors and all reviewers and committee members are being recruited, with the support of the SCMA, from South Carolina.

In summary, "it's been a very good year," and much of the success should be credited to the hard work of the leadership and committees and the active participation of many dedicated members.

On behalf of myself and the staff, we thank you for affording us the opportunity to serve the physicians of South Carolina and we look forward to continuing our efforts on your behalf.

Respectfully submitted,
William F. Mahon, Executive Vice President

SPECIAL REPORT ON THE IMPACT OF TORT REFORM

As directed by the House of Delegates at the 1988 Annual Meeting, I am submitting this special report on the initial impact of the Tort Reform legislation enacted in 1988.

Since the legislation has been in effect less than a year, it is not possible to demonstrate statistical evidence of the impact. There are, however, positive trends in the medical liability situation in South Carolina of which some can be directly attributed to tort reform while on others we may only speculate.

The Patients' Compensation Fund has approved a decrease in the rates for physicians who have been members for four years from 40 percent of the JUA premium to 30 percent of the JUA premium. This reduction was effective on March 1, 1989.

The PCF also approved a 32 percent decrease for state-employed physicians due to the one million dollar cap enacted in the revisions to the Tort Claims Act introduced by the SCMA.

The JUA has reduced the rates to the Free Clinics operating in the state as a result of the Charitable Immunity Act revisions enacted in 1988. This also was a SCMA sponsored bill.

The rates for the JUA liability insurance were not increased this year and there is speculation by the actuaries that a decrease may be possible next year.

As you can see, there is a trend in South Carolina that does not exist anywhere else in the country. Although tort reform is a factor, it is not the only positive influence. The Risk Management Program that is operated by the SCMA under contract to the JUA is having an extremely positive influence on the liability environment; many thanks are due the physicians who volunteer their time to make the program work.

Respectfully submitted,
William F. Mahon, Executive Vice President

REPORT OF THE SCMA DELEGATION TO THE AMA

The SCMA Delegation to the AMA has already presented detailed reports of each AMA meeting in appropriate issues of *The Journal*. This report, therefore, will be only a brief summary of the delegation's activities.

The delegation has endeavored to present the interests and concerns of SCMA members at the national level by meaningful participation in various AMA activities, including but not limited to the meetings of the AMA House of Delegates. We have taken to the AMA relatively few Resolutions, but believe that they have been meaningful ones. At the last Interim Meeting, our delegation submitted a Resolution (No. 70) in regard to Hospitalization Review Requirements of Self-insured Companies. This was adopted by the House after relatively minor changes. We were gratified that Dr. Robert D. Burnett of California, member of the Council on Medical Service and its former Chairman, considered this to be the most important Resolution submitted to the House.

One of the most important developments for our delegation this year was the election of Randy Smoak as Chairman of AMPAC. When Randy was first appointed to the AMPAC Board by the AMA Board of Trustees in 1984, we considered this to be the result of a team effort by our delegation, including a number of past delegation members, notably Tucker Weston, Waitus Tanner, and Harrison Peeples. I am sure that Randy would be the first to emphasize this. However, after he became a member of the AMPAC Board, Randy clearly demonstrated the leadership qualities with which we are all familiar, which led to his election as secretary in 1986, and then to his elevation to the chairmanship in 1988. We congratulate him heartily on this and also thank him for the important work that he did as Chairman of our own SOCPAC, which showed remarkable membership growth and effective political action

under his leadership.

There have been other leadership roles at the AMA by members of your delegation. Dr. Walt Roberts was elected to the Board of OSMAP (Organization of State Medical Association Presidents) at the June 1988 meeting. John Hawk completed his third term on the Council on Constitution and Bylaws, and his second year as Chairman, at the 1988 Annual Meeting. At the Interim Meeting he chaired the Convention Committee on Rules and Order of Business, which among other things was asked to bring in a special report giving recommendations in regard to campaign expenditures, hospitality, etc. This report was adopted by the House. He also serves on the Executive Committee of the Forum for Medical Affairs which presents an important and informative program on Saturday afternoon at each Interim Meeting.

As this report is written, the delegation has been asked by the SCMA Board of Trustees to bring in recommendations in regard to possible reduction in delegation expenditures. The delegation is to discuss this in a special meeting March 22, and will include consideration of attendance by accredited delegates to the various Section meetings held in conjunction with meetings of the House of Delegates.

The delegation expresses its appreciation to the SCMA membership for the privilege of representing the SCMA at the AMA level. Again, we urge that delegates to the SCMA House, and also any members of the SCMA, give us your input and participate with us in our deliberations at AMA meetings. We would also like to express our sincere appreciation for the splendid work of the Auxiliary, who have made a notable impact at the national level.

John C. Hawk, Jr., M.D., Chairman

REPORT OF THE EDITOR OF THE JOURNAL

Next year will mark the 85th anniversary of *The Journal of the South Carolina Medical Association*, one of the oldest of its kind. In the first issue, the editors urged "upon every man the importance of contributing his share." Today's editorial board strives to honor this founding philosophy: ours should be a journal by and for the South Carolina physicians, to the welfare of their patients.

At this year's Annual Meeting, the Thomas A. and Shirley W. Roe Foundation Award will be presented to a practicing physician for the article judged to be in the best contribution during 1987-1988. To our knowledge, only the *New England Journal of Medicine* offers a similar award. Our priorities for publication continue to be (1) original contributions by practicing physicians; (2) review articles by our state's institution-based physicians; and (3) information bearing uniquely on the health care of South Carolinians.

We encourage SCMA members not only to submit their original contributions, but also to

advise us of their preferences. Our cover will soon have a new look. Do you like it? What topics do you suggest for special symposium issues? And of course, we also welcome letters to the editor.

On behalf of the entire Editorial Board, I again thank Joy Drennen, our managing editor, for her herculean efforts. State journals such as ours compete for advertising resources with a myriad of sleek, commercial publications commonly known as "throwaways," Ms. Drennen not only copy-edits *The Journal*, but also spearheads our advertising efforts. At the Annual Meeting, many of the advertising booths will carry the announcement: "We advertise in *The Journal*." We encourage members attending the Annual Meeting to visit those booths and say, "Thank you."

Finally, I thank the SCMA membership for the privilege of serving you as editor.

Respectfully submitted,
Charles S. Bryan, M.D., Editor

REPORT OF THE SCMA MEMBERS' INSURANCE TRUST

The SCMA Members' Insurance Trust (MIT) completed the last fiscal year with a surplus of premium income over claims expense of \$196,000. Enrollment in the plan has grown from 1455 in December of 1987 to 1736 at the end of 1988. This 20% increase in the plan demonstrates that we are providing a service that physicians need at a price they can afford.

The last increase in premiums was in February of 1988 and at this time we do not anticipate another increase until June 1989.

One of the major changes in the plan was the moving of the claims processing activity from Provident Life and Accident to the SCMA. The first claims were paid in January with few difficulties, and we expect that considerable econo-

mies will be achieved by this change. The plan is now totally funded by the members and totally administered by the SCMA.

I would like to express the sincere appreciation of the MIT to Edward Mattison, M.D., who finished his term on the Board of Directors this past year. Ed was an outstanding president of the Trust and the Trust prospered under his able leadership.

The Trust remains in very good financial condition, and I am optimistic for the future.

I would like to express my sincere appreciation to the members of the Board and the SCMA staff for their hard work this past year.

Respectfully submitted,
Gerald A. Wilson, M.D., President

REPORT OF THE SOUTH CAROLINA INSTITUTE FOR MEDICAL EDUCATION AND RESEARCH (SCIMER)

The SCIMER has had one meeting this year at which an outline of the year's activities was discussed. We now have a fully constituted board of 12 members appointed for staggered terms thus assuring that there will be continuity on the board as well as the opportunity for new members and new ideas.

The next meeting of the committee will be held on Friday, April 28 during the Annual Meeting of the SCMA. At that time we will hear the report of our Scholarship Committee and make a final decision on the awards to be made at the House of Delegates on the last day of the meeting.

This year there will be joint scholarship awards with SCMAA to 10 students in each of our two medical schools. The contribution by the upstate cardiology group again makes it possible to award scholarships to two upstate students. As has been done for several years now, the Stuckey Scholarship will be awarded. This year we plan an award for a medical student for the best research project.

SCIMER made a cash award to the Health Van project and we are most pleased to be associated

with the auxiliary in this innovative and most valuable project. The SCMAA is to be commended for its forethought, its persistence and its hard work in getting this project accomplished.

Nancy Dickey, M.D., from Texas, will be the speaker for the Leonard Douglas Memorial Lecture at the House of Delegates on Thursday, April 27. She will speak on a subject related to medical ethics. As was the case last year, we worked with the Committee on Medical Ethics to secure Dr. Dickey as our speaker.

SCIMER continues to receive and welcome contributions to the scholarship fund, the Leonard Douglas Memorial Fund and the general activities fund. Contributions are tax deductible and will be acknowledged as requested. I hope that each SCMA member took advantage of the opportunity to contribute to SCIMER with the payment of SCMA dues.

It has been my pleasure to again serve on the SCIMER Board and as its president.

Respectfully submitted,
Euta M. Colvin, M.D., President

REPORT OF THE SOUTH CAROLINA POLITICAL ACTION COMMITTEE

The South Carolina Political Action Committee has completed the 1988 year with a total of 1012 members.

SOPAC and AMPAC assisted in the reelection efforts of those legislators who share our philosophy and ideals. In the November 1988 election, we participated in 92 races, of which we were successful in 80. Of the 12 races we lost, 4 were incumbents.

On February 18, 1989, we held a "Key Contact Seminar" at the Embassy Suites Hotel in Columbia. The seminar is designed to instruct doctors how to successfully deal with their legislators at the State House and also in Congress. It is a program put on by AMPAC.

We are looking towards the 1990 election of the

House of Representatives with the anticipation of an increased membership in SOPAC. We also encourage SCMA members to participate in local campaigns and actively support the candidate of their choice.

The SCMA would like to formally congratulate our past chairman of SOPAC, Dr. Randolph Smoak, on becoming chairman of AMPAC.

I would like to make note that our SOPAC luncheon speaker is Dr. John Zapp, D.D.S. Dr. Zapp is the AMPAC lobbyist in Washington.

On behalf of the SOPAC Board, I wish to thank you for giving us the opportunity to serve on this vitally important committee.

Respectfully submitted,
William M. Hull, Jr., M.D., Chairman

REPORT OF THE SOUTH CAROLINA MEDICAL CARE FOUNDATION

The South Carolina Medical Care Foundation has continued to provide retrospective case review for insurance companies. Several hospitals have also expressed interest in SCMCF review as part of credentialing and Joint Commission activities.

As president of the Foundation, I have been a member of the PRO liaison committee (renamed the Utilization Review Committee) of the South Carolina Hospital Association. I have also been appointed to serve on the Board of Directors of

Medical Review of North Carolina, the new PRO for our state. I am encouraged by MRNC's philosophy and genuine desire to work with physicians in our state.

If questions arise regarding PRO or review activities by other organizations, the SCMCF offers assistance and advice.

Respectfully submitted,
William J. Goudelock, M.D., President

REPORT OF THE SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Development of a Strategic Plan—In early 1988 the department began a planning process which culminated in both a strategic plan and a strategic analysis for the department. The *Strategic Plan*, approved by the board, describes the department's mission, management philosophy, strategic issues and future directions. The *Strategic Analysis* describes the department's current situation and reviews in detail the critical issues the department faces. The plan and analysis have begun to guide the organization, activities and priorities of the department. One outcome so far has been to increase the involvement of the private sector in agency activities.

Hazardous Waste Task Force—The department staffed the Hazardous Waste Task Force and developed those task force recommendations into statutory and regulatory form. The department developed emergency regulations for ascertaining in-state "needs" for solid and hazardous waste facilities.

Infectious Waste—The department worked with legislators and private industry to address potential problems with bio-medical waste. An outcome was to develop revisions to solid waste regulations strengthening landfill requirements. The revisions would affect hazardous and biomedical waste disposal. The department developed draft regulations for infectious solid waste management. In addition the department developed regulatory changes in air quality to incorporate commercial bio-medical waste incineration.

Infant Mortality—The infant mortality rate

has dropped for the sixth consecutive year to (12.8/1000.) in 1987. A new initiative, "Partnership for Healthy Generations," will focus efforts to improve access to prenatal care in six "anchor" counties which have the most excess mortality.

Ad Hoc Obstetric Committee—The department in a joint effort with the Hospital Association, established a committee to study the obstetric crises in the state. The South Carolina Medical Association and other state agencies have been actively involved from its initiation. As specific problems are identified, the committee has sought solutions. An example is the implementation of a plan to increase obstetrics' fees by using the department's (DHEC) funds to "match" Medicaid.

Ad Hoc Pediatric Task Force—Building on the success of the Obstetric Task Force, the department, in a joint effort with the Hospital Association and in cooperation with the South Carolina Medical Association and other state agencies, has established a Pediatric Task Force. This group has begun the process of problem definition for pediatric care.

Children with Hemoglobinopathies—In a specific area, newborn testing for hemoglobinopathies, the department has completed its first complete year of testing. Of the 59,255 tests run, 1,789 were found with sickle cell traits, 159 with sickle cell disease and 43 with sickle-C disease. Statistical testing was required by the Legislature based on a cooperative study between the Medical University of South Carolina and the department.

DHEC REPORT

Newborns identified with sickle cell anemia are followed by the Children's Health Division and placed in prophylactic antibiotic therapy unless the family refuses services or the primary care physician chooses a different approach.

Monitoring Health in South Carolina—In December, the department released a report documenting the disproportionate poor health of black South Carolinians compared to white South Carolinians and to black Americans. The department has established a Minority Health Task Force which is broadly representative of the community and public and private organizations, including the Medical Association, to develop a strategic plan to close the gap. The Task Force will use existing studies and reports as their foundation.

AIDS and HIV—An aggressive program of education, counselling and testing and partner notification has been instituted in the past year. In January and February, 1988, a seroprevalence study for HIV antibody was conducted in sexually transmitted disease public health clinics. Seroprevalence was 2.35 percent among male patients and 0.7 percent among females, 1.6 percent for blacks and 1.4 percent for whites. The Bureau of Laboratories is planning to make available tests to allow physicians to monitor progress of the patients infected with HIV.

Licensure of Health Facilities—Regulatory responsibility for licensing birthing centers and residential treatment facilities for children and adolescents was added in 1988. Standards for designation of Level II and III perinatal centers were also developed and adopted. Revised Certificate

of Need regulations to implement the statute passed in 1988 have been sent to the Legislature. Efforts have been made through establishment of working advisory committees to obtain input to the development of new regulations prescribed by the Certification of Need and Health Facilities Licensing Act of 1988. The role of the paramedic has been expanded to include the ability to monitor drugs used in the transfer of critical patients which will enable better treatment during extended transportation.

Center for Health Promotion—A center for health promotion has been established to lead the agency's efforts to reduce the prevalence and severity of risk factors associated with the state's leading causes of death. The center includes program elements that were formerly located in the Division of Chronic Disease and the Office of Health Education. This new organization stresses the importance of community-based prevention efforts and provides a single agency focal point for risk reduction programs and activities. For example, the Florence Heart to Heart Program, which is part of DHEC's Cardiovascular Disease Prevention Project, has implemented a variety of efforts to increase public awareness of cardiovascular disease risk factors. Community-wide campaigns have focused on fitness, nutrition and smoking. A recent "Quit and Win" contest attracted nearly 400 smokers who tried to quit smoking for a month to become eligible for prizes donated by local merchants.

Respectfully submitted,
Michael D. Jarrett, Commissioner

REPORT OF THE S. C. STATE BOARD OF MEDICAL EXAMINERS

This past year has been a very active and effective year for the board. This report shall present a brief statistical summary and review of the past year.

Licensure—In 1988, this board issued 481 permanent licenses to physicians. This compares to 587 such licenses issued in 1987. Ninety of these licenses were issued by way of the FLEX examination. Three hundred ninety-one were issued by endorsement of credentials through the National Board or other state boards. Of the 481 permanent licenses issued, 20 were issued to graduates of foreign medical schools. By way of comparison, in 1987 graduates of foreign medical schools received 28 permanent licenses. Of the 481 permanent licenses issued, 18 were issued to Doctors of Osteopathy.

This board administered the FLEX examination in June and in December. In June, 20 applicants took the exam; 17 passed and 3 failed. In December, a total of 9 took the exam and all passed.

Limited licenses are for residency training or other special supervised practice environments approved by the board. A limited license is for a one-year period (July 1-June 30) or a part thereof. A total of 285 limited licenses were issued in 1988. Limited licenses were issued to 245 United States/Canadian graduates; 40 limited licenses were issued to graduates of foreign medical schools.

Nine new physician's assistants were certified by the board in the past year. There are 47 physician's assistants licensed in South Carolina.

The medical directory of physicians licensed in South Carolina was again printed in 1988. In the 1988-89 directory there were 5,388 physicians listed practicing instate, and 1,448 licensed in South Carolina but practicing out-of-state.

Investigatory and Disciplinary Activities—In 1988, the board received 135 complaints. This compares to 124 received in 1987. Twenty-six (26) orders were issued by the board during 1988. These orders resulted in 2 revocations; 3 voluntary

surrenders; 4 indefinite suspensions; 3 suspensions with fines; 1 public reprimand; 1 private reprimand; 10 agreements with conditions; and 2 license denials. These disciplinary cases include sanctions for deviations from accepted standards of practice, inappropriate prescribing, improper supervision of a physician's assistant, and substance abuse.

Legislative Changes—This past year, the Legislature passed certain changes in the board's FLEX requirements, and a new SPEX examination for certain applicants was instituted. Minor changes regarding certification of respiratory care practitioners were also made.

Board Membership—Three board members were re-elected to the board: R. Patten Watson, M.D., of Columbia, representing the Second Congressional District; James C. Holler, Jr., M.D., of Rock Hill, representing the Fifth Congressional District and James R. Edinger, D.O., representing the osteopathic physicians at large.

Current officers and members of the board are: J. Ernest Lathem, M.D., President (re-elected as president 1/89); Spencer C. Dishner, Jr., M.D., (re-elected as vice-president 1/89); R. Patten Watson, M.D., (re-elected as secretary 1/89); Vernon E. Merchant, Jr., M.D.; James C. Holler, Jr., M.D.; C. Dayton Riddle, Jr., M.D.; Mrs. Esther H. Tecklenburg; James S. Garner, Jr., M.D.; James R. Edinger, D.O.; Stephen I. Schabel, M.D.

Current members of the Medical Disciplinary Commission are: John A. Ouzts, III, M.D.; Jack A. Evans, Jr., M.D.; Alan W. Fogle, M.D.; W. Wallace Fridy, Jr., M.D.; Charles J. Owens, M.D.; Donald G. Gregg, M.D.; C. Alden Sweatman, Jr., M.D.; Robert E. Lee, M.D.; Bryan L. Walker, M.D.; James L. Maynard, M.D.; Boyce M. Lawton, Jr., M.D.; Joseph W. Dunlap, Jr., M.D.; James E. Bleckley, M.D.; Daniel M. Ervin, M.D.; James M. Rainey, M.D.; Martin H. Zwerling, M.D.

Respectfully submitted,
J. Ernest Lathem, M.D., President of the Board

RESOLUTIONS

SUBMITTED BY: *South Carolina Thoracic Society*
SUBJECT: **CLEAN INDOOR ACT**

WHEREAS, Sufficient data are now available to support the report of the Surgeon General of 1986, "The Health Consequences of Involuntary Smoking," which clearly identifies the health issues, including lung cancer, associated with the involuntary inhalation of environmental tobacco smoke; and

WHEREAS, It is long overdue that this legislation be adopted to protect the rights of the vast majority of the citizens of South Carolina who are non-smokers; therefore, be it

RESOLVED; That the SCMA strongly endorse the passage of S.138 to enact the Clean Indoor Air and Promotion of Public Health Act of 1989 and to provide penalties and violations.

SUBMITTED BY: *South Carolina Chapter of American Academy of Pediatrics*
SUBJECT: **CORPORAL PUNISHMENT IN SCHOOLS**

WHEREAS, Recent educational, psychologic and psychiatric literature continues to accumulate evidence in opposition to corporal punishment in schools; and

WHEREAS, Events of misuse and abuse are associated with administration of corporal punishment and the American Academy of Pediatrics has encouraged alternative methods for implementation of self-control and responsible behavior; therefore, be it

RESOLVED; That the South Carolina Medical Association urge all Legislators, school board members, educators, parents and other adults within South Carolina to seek the abandonment of corporal punishment and its legal prohibition within the educational system.

SPECIAL GUEST: JOHN LEE CLOWE, M.D., SPEAKER, HOUSE OF DELEGATES, AMERICAN MEDICAL ASSOCIATION

John Lee Clowe, M.D., a family practitioner from Schenectady, New York, was elected to serve his second term as Speaker of the AMA House of Delegates in June, 1988. He had served as Vice Speaker 1984-86, and as a Delegate from the Medical Society of the State of New York and Chairman of its Delegation from 1980 to 1984.

Doctor Clowe began his service to organized medicine in 1963 as a Delegate to the Medical Society of the State of New York from Schenectady County Medical Society, and is a Past President of that Society. He became Vice Speaker of the House of Delegates of the Medical Society of the State of New York in 1979 and served as Speaker of that House from 1980 until his election to the AMA Board. He is a member of the Board of Directors of the New York Medical Political Action Committee and on the Executive Committee of the Medical Liability Mutual Insurance Company. Doctor Clowe is a member of the Institute of Parliamentarians, and also Chairman of the

Nurses Advisory Council at Ellis Hospital School of Nursing in Schenectady.

Doctor Clowe received his M.D. degree from Albany Medical College-Union University, Albany, New York, and took his internship and residency at Ellis Hospital in Schenectady. He is a Diplomate of the American Board of Family Practice and a Charter Fellow and member of the American Academy of Family Physicians. He is a Past President of the American Academy of Family Physicians, Schenectady County.

Doctor Clowe is an Attending in Family Practice at St. Clare's and Ellis Hospitals in Schenectady and an Attending in Medicine at Ellis Hospital. He is an Associate in Medicine at the Albany Medical College in Albany, Chief School Physician of the City of Schenectady, and Health Officer of the Town of Niskayuna.

Doctor Clowe and his wife, Marion, reside in Schenectady.

SOCPAC LUNCHEON SPEAKER: JOHN S. ZAPP, D.D.S., DIRECTOR OF GOVERNMENT AFFAIRS, AMERICAN MEDICAL ASSOCIATION

Guest speaker for the SOCPAC luncheon on Saturday, April 29, will be John S. Zapp, D.D.S., Director of Government Affairs for the American Medical Association.

Dr. Zapp is a native of Nampa, Idaho, who was educated at Boise College and the Creighton University School of Dentistry in Omaha, Nebraska. He did postgraduate studies in Dentistry at the Universities of Washington and Oregon and in Political Science at Portland State College. He then entered the private practice of Dentistry in The Dalles, Oregon, and later in Portland.

Prior to his position of Director of Government Affairs for the AMA, he served as Director of the AMA Department of Congressional Relations and later as Director of the AMA Washington Office. He has also served as Deputy Assistant Secretary for Legislation (Health) in the Department of

Health, Education and Welfare, Deputy Assistant Secretary for Health Manpower, Special Assistant of Dental Affairs and Federal Representative to the Liaison Committee on Medical Education.

Dr. Zapp's honors include citations as one of Oregon's "Ten Outstanding Young Men," the Distinguished Service Award "Young Man of the Year," Honorary Doctor of Science Degree from the College of Medicine and Dentistry of New Jersey, and Special Citations from the Secretaries of HEW, Elliott L. Richardson and Casper W. Weinberger. He is an Affiliate Member of the AMA and the American Association of Clinical Urologists.

Dr. Zapp served his country as a member of the United States Marine Corps, receiving a Purple Heart in the Korean War.

LEONARD W. DOUGLAS, M.D., MEMORIAL LECTURE: "MEDICAL ETHICS: WHERE DO THEY COME FROM?" NANCY WILSON DICKEY, M.D.

Dr. Dickey is a member and former Chairman of the AMA Council on Ethical and Judicial Affairs. A Diplomate of the American Board of Family Practice, she is currently an Associate Professor in the Department of Family Practice at the University of Texas Medical School at Houston.

Dr. Dickey received her undergraduate education at Stephen F. Austin State University and her M.D. Degree from the University of Texas Medical School at Houston. Her honors and awards include Alpha Omega Alpha at the University of Texas Medical School at Houston; Chief Resident, Memorial Hospital, Department of Family Medicine, Houston; *Who's Who in American Colleges and Universities*, 1975; and Distinguished Alumni, University of Texas Medical School at Houston, 1987. She holds positions on the Edi-

torial Advisory Board of *Medical World News* and *Patient Care*, and has also served on the Editorial Advisory Board of *Medical Ethics Advisor*.

Dr. Dickey has served her community as a member of the Board of Directors of The Hastings Center, the Office of Early Childhood and Development, and the American Heart Association, Fort Bend County Chapter. Active in St. John's United Methodist Church, she has also participated in school district activities and has been a member of the Richmond/Rosenberg Chamber of Commerce.

A well-known speaker on topics pertaining to medical ethics, she is also the author of the Hastings Center Report (1987) and Courtland Forum (1988).

Editorials

For several years, AIDS has held center stage at our annual meeting. This year will probably be an exception, although a scientific session will deal with specific aspects of the management of HIV infection.

In last month's issue of The Journal, the results of a seroprevalence study of inpatients at the James F. Byrnes Medical Center—a facility of the Department of Mental Health—were reported. Approximately one of every 25 patients from the Department of Corrections, one of every 100 patients from the Detoxification Program, and one of every 400 Mental Health inpatients were HIV-positive. In the editorial below, Dr. Arthur F. DiSalvo outlines a program for screening newborn infants for HIV antibody.

While of great interest, such seroprevalence studies demonstrate why we must now regard everybody as potentially HIV-infected and therefore use universal precautions.

—CSB

NEWBORN SCREENING FOR HIV ANTIBODY

On January 31, 1989, the Bureau of Laboratories received a grant of \$263,000 for 1989 to anonymously screen all newborns in South Carolina for evidence of HIV antibody. The grant is renewable for four additional years.

In 1987, the Centers for Disease Control (CDC) initiated a group of studies referred to as the "Family of HIV Sero-Prevalence Surveys" to determine the extent and monitor the spread of HIV infection in various segments of the population. One of these surveys involved testing specimens from neonates for evidence of HIV infection. This testing of the newborn is an acceptable surrogate to determine the sero-prevalence of HIV in childbearing women and an indirect method of assessing HIV penetration into the heterosexual population. In addition, it is possible to chart the geographical and temporal trends of this disease in our society using this study population.

CDC implemented these surveys in 30 cities in the United States: 20 high-risk cities and ten low-risk cities. Initially, no city in South Carolina was selected. In 1988, the CDC asked us to develop a proposal which would permit South Carolina to be included in the study. In September of 1988, the Bureau of Laboratories sought funding which would be used to screen virtually all of the neonates in the state for evidence of HIV infection. South Carolina is presently screening for phenylketonuria (PKU), hypothyroidism, and hemo-

globinopathies. Testing would be accomplished using specimens collected and submitted to the Bureau of Laboratories for this screening and would not require the inconvenience for the patient, physician or health care provider of obtaining an additional specimen.

The CDC grant has two absolute restrictions: the HIV sero-prevalence study must not interfere with the newborn screening for metabolic diseases and the results must be irrevocably separated from all information which may directly or indirectly identify the patient. A computer program has been designed so that after completion of all routine newborn metabolic disease testing, a new file will be created for use in HIV testing containing only general demographic data about the mother (age, race, county of residence). The new data file will be used for all subsequent HIV-related work and the blood spot specimens used in HIV testing will be separated from the request form to avoid even inadvertent correlation of HIV results and patient identification. As an added security precaution, HIV testing will be performed by different personnel and at a separate site from routine screening for metabolic diseases.

In December 1988, the House of Delegates of the American Medical Association (AMA) passed Resolution Number 9. Recognizing that most state public health laboratories already routinely tested blood from newborns, and that technology is

available to determine HIV antibody from these specimens, this Resolution urges state health departments, in states with a high prevalence of neonatal infection, to add HIV testing to the newborn screening. The AMA states that this action is justified because earliest possible identification is important for counseling, partner tracing, infant care and recognition that an infected mother may be breastfeeding an uninfected infant.

At present, South Carolina is not considered as a state with a high prevalence of HIV in the newborn. However, any physician who wishes to have infant patients tested for HIV and receive the results, as suggested by the AMA resolution for high prevalence states, may request these tests from the Bureau of Laboratories. HIV testing with identification may be obtained by collecting a specimen similar to that used for metabolic disease screening and submitting the specimen accompanied by the appropriate laboratory form. Additional information can be obtained by telephoning the laboratory (737-7002).

More recently, on February 8, 1989, the National Research Council, an affiliate of the National Academy of Sciences, released a major report on the AIDS epidemic. The commission chairman, Dr. Lincoln Moses, recognizing that many states now routinely test newborn babies anonymously for HIV antibody, recommended that anonymous testing should be extended to all newborns. South Carolina will implement this

recommendation by July 1, 1989.

It may be asked why a state such as South Carolina, with a relatively low prevalence of neonatal HIV infection, should participate in a seroprevalence survey. The relatively low incidence of HIV in the heterosexual and, hence, in the neonatal population of South Carolina is precisely why the participation of states such as South Carolina is so critical. States with a relatively high prevalence of neonatal HIV are beyond the point where they can provide epidemiologic data about the early stages of HIV spread in the heterosexual population. If there is complacency regarding HIV transmission in the heterosexual population of South Carolina, data derived from this study could stimulate individuals to reduce their risk behavior.

In conjunction with CDC, the Bureau of Laboratories plans on the periodic release of information as it is gathered in the course of this sero-survey.

Arthur F. DiSalvo, M.D.

Chief, Bureau of Laboratories

William B. Gamble, M.D.

Chief, Bureau of Preventive Health Services

South Carolina Department of Health and
Environmental Control

Box 2202

Columbia, S. C. 29202

It is customary to preface guest editorials with the disclaimer that the opinions expressed may not reflect the views or positions of the South Carolina Medical Association. Although the following is not a guest editorial, this disclaimer should also apply. These viewpoints are my own.

—CSB

PEER REVIEW WHERE IT COUNTS

Although we spent four years together in the same institution, I do not recall exchanging pleasantries with Ralph (not his real name) on even a single occasion. Something about him seemed instinctively unpleasant, bordering on the malevolent. Now, 22 years later, I fully understand why I never went out of my way to break the silence. Called to testify at a court trial in which I saw not the faintest hint of malpractice, I asked the defense lawyer: "Whom did the plaintiff's lawyer

find to testify?" The answer: Ralph. Some research disclosed that Ralph had testified against nearly 50 physicians throughout the United States in recent years. Need a plaintiff's witness? Call Ralph.

The awarding of \$21.75 million to Rock Hudson's HIV antibody-negative lover illustrates that anything can happen when matters are decided by American juries. There is wide agreement that our trial-by-jury tort liability system is especially

poorly suited to medical negligence cases. Still, we must function with this system until a better one comes along. Some plaintiffs have legitimate grievances, and it is therefore essential that physician witnesses be found to support their cases. My purpose here is not to dispute the legitimacy of such testimony when the theory of negligence centers around well-established principles of practice or standards of conduct. Rather, my purpose is to question the ethical justification of zealous advocacy on behalf of plaintiffs in questions of opinion, judgment, or skill in which equally knowledgeable and conscientious physicians might have acted differently. However outlandish, such testimony suffices to bring the matter before a jury. Irrespective of the outcome, such cases do incalculable damages both to the physician defendants and to society.

Plaintiffs' attorneys seem to have an increasingly easy time locating physicians such as Ralph who are ready and eager to testify in dubious or borderline cases. It is no secret that legal testimony pays well. Some of the witnesses, such as Ralph, are private practitioners, while others number among the elite of academic medicine. Many are paid by brokerage firms which receive a contingency fee of 20% to 30% for favorable verdicts.¹ Many of these witnesses seem—like some plaintiffs' lawyers—to accept an unfortunate outcome as *prima facie* evidence of malpractice.

What is most bothersome about this testimony is that the witnesses seem to forget the wisdom expressed in the first aphorism of Hippocrates: judgment is indeed difficult. The same can be said of surgical skill; recall that even the great J. Marion Sims described in his autobiography a patient's death due to inadvertent ligation of both ureters. When the day comes that neither clinical judgment nor skill figures into the equations that determine outcome, our profession will be obsolete. But then—it's arguable whether physicians such as Ralph have much of a concept of what we mean by *profession*.

I suggest the following desiderata:

1. Medical organizations—both umbrella societies such as ours and specialty societies—should establish standards pertaining to ethical testimony on behalf of either plaintiffs or defendants. Due to its importance to the court, such testimony should never reflect shades of opinion in matters in which equally well-trained, well-read, and diligent physicians might disagree. Rather, such testimony

should be easily justified by the preponderance of medical thought as expressed in textbooks and/or by well-established standards of practice.

2. Medical organizations should establish a mechanism for evaluating complaints about physicians' testimony, whether based on individual instances which seem highly questionable or on frequent testimony which seems of marginal validity. Testimony which is clearly irresponsible, or frequent testimony which is highly questionable in most instances, should be grounds for probation or dismissal from such organizations. Irresponsible testimony should also be grounds for revocation of hospital staff privileges and medical licenses.

3. Medical organizations and teaching institutions should develop qualifications requisite for their members to testify in court. No physician should be allowed to testify in medical negligence cases—either for plaintiffs or defendants—with-out first demonstrating a knowledge of (a) the basis for theories of negligence; (b) the "deep pocket" approach and hence the need to discern among multiple alleged joint tortfeasors; (c) the pivotal role of the expert witness; (d) the reciprocal nature of the physician-patient contract; (e) the potential for devastating consequences of malpractice litigation on the lives of physicians and their families, even when the defense ultimately prevails; (f) the cost of malpractice litigation to society; and (g) one's own fallibility.

4. Hospital staffs should develop more meaningful peer review mechanisms, including the willingness to advise colleagues of instances in which retrospective chart review suggests—yes—malpractice. Although the situation is improving, too often in the past the discovery of apparent malpractice has left committee members stuttering: "Who will bell the cat?" Legislation should protect the findings of peer review committees from the legal discovery process. It has been the failure of our own peer review mechanisms, plaintiffs' lawyers might contend, that has created what we perceive to be a crisis of malpractice litigation in the first place.

What does it mean to be a member of the medical profession? In today's era of specialties and subspecialties, it is the umbrella organizations such as the county societies, the SCMA, and the AMA which best provide the answers. I suspect that persons such as Ralph, who seem willing to slam wrecking balls into the lives of their col-

leagues for their own financial gain, often consider our organizations to be meaningless. To be a professional means to set high standards for oneself; to be a member of a profession means to adhere to standards set by colleagues. To set standards for court testimony just as we improve standards for the peer review of our art and sci-

ence would seem to be in the dearest interests of our litigious society.

—CSB

REFERENCE

1. Doctors seek crackdown on colleagues paid for testimony in malpractice suits. *The Wall Street Journal*, November 7, 1988.

ON THE COVER: THE GERMAN FRIENDLY SOCIETY SCMA FIFTH ANNUAL MEETING

Featured on this month's cover is an architect's rendering of the original Hall of the German Friendly Society, site of the fifth Annual Meeting of the South Carolina Medical Association in 1853. This building was built in 1801 on Archdale Street (across from St. John's Lutheran Church) and burned in 1864. Earlier meetings of the Association had been held at the Apprentices' Library, the Temperance Hall and Market Hall. Of these, only the Market Hall is still standing, and we have been unable so far to locate pictures of the other two.

The fifth Annual Meeting was convened on January 31, 1853, with Dr. Eli Geddings, President, in the chair. There were only 37 members present for the opening session. Members of the Colleton District Medical Association applied for and were granted a charter and its members duly elected members of the Association.

The Treasurer, Dr. W. T. Wragg, reported a deficit of approximately \$250 in the treasury, caused by the failure of the members to pay their dues. "The amount of yearly contribution is so small [\$5] that it cannot be inconvenient to a

member, at any time, to pay up the sum. Their dilatoriness must, therefore, arise from want of consideration. . . . The evil is great." It was, "Resolved, That the Treasurer be authorized to appoint a collector for the country with the usual compensation, to collect arrears due the Association."

The committee on Registration of Births, Marriages and Deaths reported that they were again memorializing the Legislature to establish a system of registration.

The Annual Address by Dr. Emory Coffin of Aiken, "Observations on the Influence of Climate in Tubercular Disease," was postponed so that the association members could attend the funeral of Dr. W. G. Ramsey and so that the Dean of the Medical College could invite the medical students to attend the lecture.

After several other reports, discussions, and addresses, there being no further business before the Association, it adjourned.

—BETTY NEWSOM
The Waring Historical Library

SOUTH CAROLINA MEDICAL ASSOCIATION

AUXILIARY



REPORT OF THE PRESIDENT OF THE SCMA AUXILIARY TO THE 1989 SCMA HOUSE OF DELEGATES

The 1988-1989 year began with a theme, "Bright Ideas—TOGETHER We Can Make Them Happen." By our working TOGETHER to make our IDEAS become reality, many goals have been reached, and our communities will benefit from the results for years to come.

THE HEALTH EDUCATION VAN: The HEV is now in operation after two years of careful planning and fund raising. Mrs. Lewis Terry (Betsy), HEV Chairman, has spent countless hours on this project, and to her we are very grateful. Our appreciation is extended, also, to SCMA, SCIMER, the S. C. Department of Education, county medical societies and auxiliaries, and to the many auxilians and other individuals who contributed to the HEV project. The HEV provides opportunities to teach health education to South Carolina school children, for teacher training, workshops, staff development and health programs for adults. The following areas will be taught by two health educators: nutrition, alcohol and drug awareness, life begins, and personal health.

HEALTH PROJECTS: The commitment to improving the quality of life in South Carolina through numerous health projects has been maintained. Auxilians have been involved in many health related activities: personal awareness programs (mammogram month, pap smear month, cholesterol check month, physical for spouse month, and physician fitness month); pre-school vision screening; hospice; child abuse shelters; Camp Kemo Scholarship; Special Olympics; nursing and medical student scholarships; indigent care; teen center support; and substance abuse are some of the many programs.

The topics discussed at the "1989 Focus On Health" program during the Winter Board Meeting were Adolescent Health, The Importance of Cholesterol Testing and Nutrition, Building Children's Self Esteem, and Update on AIDS in S. C. All the speakers were physicians' spouses, and their presentations were outstanding. Cholesterol testing was provided free by Providence Hospital Heart Institute. The exhibits were very informative and visited by many of our auxilians. This program was perfectly planned by Mrs. Robert Galphin (Linda) and Mrs. Eugent Schwarz (Laurie), Health Projects Chairmen.

MEMBERSHIP: Under the direction of Mrs. Birnie Johnson (Virginia), Membership Chairman, all non-auxilians (including military spouses) have been invited and encouraged to join the auxiliary. As an effort to attain more members, two membership campaigns were held during the year. Many resident physician/medical student spouses have been sponsored by auxilians. Creating interest during the training years will provide a smooth transition during the practice years.

The physicians' spouses in Cherokee County voted to reorganize the Cherokee County Medical Auxiliary. We welcome them into our organization.

To build up membership in their counties, the presidents of Florence and York counties offered a membership challenge.

Virginia's interest and enthusiasm will surely be reflected in our final total of members.

AMA-ERF: For more than 30 years, the SCMA Auxiliary has continued to support medical education and research. A goal of \$25,000 for this year has been set by Mrs. David Cook (Rosemary), AMA-ERF Chairman. Many fund raising events by the counties and by the state will assure the committee's goal to promote continued quality medical education and quality medical care for all.

Christmas Sharing Cards by the counties bring in a very large percentage of money for AMA-ERF, and SCMA Auxiliary Executive Board's Valentine Sharing Card contributed much towards this fund. The state committee is also sponsoring a quilt raffle. The winner will be drawn during the luncheon at convention.

Checks representing all auxiliary contributions will be presented to the deans of the state's medical schools at the SCMA House of Delegates.

LEGISLATION: Auxilians and their spouses were encouraged to register to vote and to vote in the November 1988 election. Many auxilians were actively conducting voter registration at hospitals and

EDITORIALS

involved in working for candidates who best promote the interest of the medical profession.

A very informative legislative workshop was held in September which was planned by the Legislative Chairman, Mrs. Charles Duncan (Pat). In March, a "Day at the Legislature" will be attended by many auxilians.

SOCPAC: Membership has been encouraged during my county auxiliary visits. Letters and reminders stressing the importance of SOCPAC membership were mailed to all auxilians.

Two members of the auxiliary serve on the SOCPAC Board.

EXECUTIVE BOARD MEETINGS: During the *Spring Board Workshop* in May, at roundtable discussions, the retiring officers and committee chairmen shared their expertise with incoming officers and chairmen. Speakers from health-related organizations made brief talks and provided exhibits.

Dr. Thomas C. Rowland, Jr., President of SCMA, and Mr. William Mahon, SCMA Executive Vice President, brought greetings from SCMA and gave an update on its activities. Mrs. Mark Whittaker (Barbara), SCMA Auxiliary Staff Director, reported on the Personal Care program.

The *Fall Executive Board Meeting* was held in October, and excellent plans for the year were given by the officers, committee chairmen, and the county presidents. Dr. Rowland was the featured luncheon speaker. Dr. Katy Wynne, Health Education Van Educator, was introduced and spoke briefly.

During the *Winter Board Meeting*, brief reports were given by a few committee chairmen. Special luncheon guests were Dr. Rowland and Mr. Mahon. Miss Ann Slater, S. C. Department of Education Health Consultant, was the luncheon speaker.

DOCTOR'S DAY: Doctors' Day is a project promoted by Southern Medical Association Auxiliary. It is the goal of Southern to include awareness of breast disease and the good results of mammography in each county in connection with Doctors' Day. In honor of Mrs. David Thibodeaux, who underwent a double mastectomy last summer, physicians' spouses are being encouraged to have a mammogram.

Many activities are being planned in honor of doctors on March 30.

PHYSICIANS' FAMILY SUPPORT: Support groups are being formed to help physicians' families through difficult experiences. These services can range from help with a new baby to transportation to referral to a spouse's treatment team member. A training seminar on April 6, 1989, is being planned by Mrs. M. E. Borgstedt (Kaye), Chairman of the Physicians' Family Support Committee. TOGETHER We must support our physicians' families.

SCHOLARSHIPS: Annually, SCIMER and the SCMA Auxiliary award ten scholarships to worthy medical students based on merit and need. These scholarships will be presented during the SCMA House of Delegates.

SCMA LEADERSHIP CONFERENCE: We appreciate the SCMA's invitation to auxilians. Six auxilians were in attendance at this year's outstanding conference.

SCHOOL NURSES' WORKSHOP: The SCMA Auxiliary was pleased to co-sponsor the Eighth Annual School Nurses' Workshop with the S. C. Department of Education and DHEC. Nurses from schools throughout S. C. attended this very informative workshop. A Health Education Van update was given during the luncheon.

SCAN/JOURNAL PAGE: The S. C. Auxiliary News (SCAN) was published three times during the year. The auxiliary page of *The Journal of the South Carolina Medical Association* has been written monthly by state officers and committee chairmen. The Auxiliary is very proud of this privilege as it serves as a fine vehicle in communicating with our spouses' organization.

AMA AUXILIARY MEETINGS: SCMA Auxiliary members were represented at the following meetings in Chicago: *AMA Auxiliary Annual Convention* was attended by six delegates and by the presidential delegate. Also attending from South Carolina were Mrs. Wayne Brady (Billie), AMAA Past President, and Mrs. Perry Davis (Sheila), AMAA Bylaws Chairman. The SCMA Auxiliary President and five county presidents-elect attended *Confluence I* in October 1988. Attending *Confluence II* in February 1989 were the SCMA Auxiliary president-elect, the nominated president-elect, and four county presidents-elect.

SCMA: The SCMA Auxiliary appreciates the support and guidance given by the SCMA. The assistance and advice of the SCMA has been essential to the accomplishment of auxiliary goals. We thank Dr. Rowland and Mr. Mahon for attending our Executive Board Meetings and giving SCMA updates, and we thank the SCMA Board of Trustees for the opportunity to attend the board meetings. The auxiliary is appreciative of the opportunity to serve on nine SCMA committees.

The Auxiliary is very grateful to SCMA for the services of Mrs. Mark Whittaker (Barbara) and the SCMA staff. Barb's expertise and willingness to help *ALL* auxilians have been an immense service to the auxiliary. She has attended our meetings faithfully and has offered excellent suggestions and help. I am most fortunate to have Barbara assist me in my presidential duties.

Respectfully submitted,
Mary James (Mrs. Stanford)
President, SCMA Auxiliary

EXHIBITORS FOR 1989 ANNUAL MEETING

1. Miles Inc. Pharmaceuticals
2. Abbott Laboratories
3. Glaxo Pharmaceuticals
4. BioAnalogics, Inc.
5. Burroughs Wellcome Company
6. Colleton Regional Hospital Rehabilitation Care Unit
7. Merck Sharp & Dohme
8. Roche Biomedical Laboratories, Inc.
9. Navy Medical Programs
10. Southeastern Hospital Supply
11. Palisades Pharmaceuticals
12. Mead Johnson Nutritionals
13. Bristol Laboratories
14. Charter Rivers Hospital
15. Genentech
16. S. C. Department of Health & Environmental Control
17. IC System, Inc.
18. Wyeth Laboratories
19. Parke-Davis
20. The Medical Protective Company
21. Boehringer-Ingelheim Pharmaceuticals, Inc.
22. Refreshments
23. Pfizer Laboratories
24. S. C. AHEC—Center for Recruitment & Retention
25. Dial Page
26. DuPont Pharmaceuticals
27. Wallace Laboratories
28. The Pain Therapy Centers
29. Physician Sales & Service, Inc.
30. Ross Laboratories
31. Smith Kline & French Laboratories
- 32, 33. Winchester Surgical Supply Company
34. U. S. Army Health Professional Support Agency
35. Fenwick Hall Hospital
- 36, 37. The G Geisler Group
38. Lancaster Recovery Center
39. S. C. Medicaid
40. Shepherd Spinal Center
41. American Heart Association, S. C. Affiliate
42. Refreshments
43. Carolina Physicians Advisory Service
44. Roerig-Pfizer
45. Premier Marketing
46. McNeil Consumer Products Company
47. Health Images, Inc.
48. The W. B. Saunders Company
49. U. S. Air Force
50. The Upjohn Company
51. Lederle Laboratories
52. Sandoz Pharmaceuticals
53. The Computer Store
55. Popcorn
63. Carolina Medical Review
64. MUSC Alumni Affairs
65. Adria Laboratories
66. Disability Determination Division, S. C. Department of Vocational Rehabilitation
68. USC School of Medicine
- 69, 70. Companion Technologies, Inc.
71. Mosteller Design and Construction
72. Ciba-Geigy
73. Roper Hospital
74. BFI Medical Waste Systems
75. Raggio Associates, Inc.
- 76, 77, 78. CompuSystems



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THE NON-OPERATIVE CARE OF THE VASCULAR SURGICAL PATIENT

GILBERT B. BRADHAM, M.D.*

The vascular surgeon is currently well trained to operate on vascular surgical conditions. In past years such training was an accelerating panorama of new surgical feats with new prosthetic grafts, new sutures, new instruments and new techniques. Most of the current vascular operations are now standardized with accepted operative indications, techniques which have proven themselves, and technological adjuncts which have been well tested. Vascular surgery, while young, has come of sufficient age that most vascular surgeons agree with each other, a condition unusual in the professions.

During the maturation of vascular surgery perhaps the most controversial subject has been the decision not to operate. A frequent clinical argument has been "Let's try a graft, if it works, good, if it doesn't, we can always amputate." Another has been "We are in the salvage business, let's try to salvage, even if we have to run a graft down to his little toe." Experience now provides a much more objective probability of significantly helping some patients and the futility of vascular surgery to others.

This article is written as a guide of measures to help the patient whose blood vessels are not amenable to surgical alterations or bypass.

THE PROBLEMS

Most current arterial vascular problems stem

from atherosclerosis. Atherosclerosis is a condition of lifestyle. Most venous problems are secondary to recurrent venous thrombosis.

The most frequent problem of the patient with vascular impairment is that of obstructive atherosclerotic plaque providing lack of tissue perfusion during muscular work. Intermittent claudication is a perfect example of this type of problem but is fundamentally no different than angina pectoris or mesenteric ischemia. Because of its frequency we will use claudication as a clinical example which often demands non-vascular surgical care.

Patients with intermittent claudication have symptoms of muscular pain during exercise. At rest, blood flow to the calf muscles is in the range of 2-5 ml. of blood per 100 grams of muscle per minute. During exercise, even as mild as walking, the blood flow may increase to 50 ml. blood per 100 grams muscle per minute. If the arteries are diseased and cannot deliver blood flow sufficient to provide oxygen for lactate metabolism, lactate and hydrogen ions accumulate in the underserved muscle and cause pain. The patient stops exercising, the demand for blood flow diminishes, and there is cessation of pain.

When the above condition occurs frequently enough, the patient seeks the advice of a physician. The symptoms alone are sufficient to denote vascular insufficiency. After the physician has surveyed all of the pertinent patient data he may wish to have the patient evaluated in a vascular diagnostic laboratory.

* Department of Surgery, Medical University of South Carolina, 171 Ashley Avenue, Charleston, S. C. 29425-0950.

THE VASCULAR SURGICAL PATIENT

Vascular diagnostic laboratories utilize a variety of technological methods of measuring vascular disease and its effect on blood flow and perfusion. When intermittent claudication is the problem, measurement of blood pressure at the thigh, calf, ankle, and toe levels is important. While initially a screening test, these initial pressures do give objective evidence of vascular impairment, direct attention to the necessity of angiography and serve as valuable data against which to compare therapeutic modalities.

Next, the patient should have angiography. There are constant improvements in the discipline of vascular radiology. At present, with balloon occlusion of the vessel to be studied and selective injection of contrast media, vascular disease can be radiographically well defined.

If the vascular disease and the patient's general condition indicate, re-vascularization of the leg is the optimal choice. If, for any reason an operative choice appears unwise, conservative management is indicated. The remainder of this presentation outlines some of the treatment which we have advocated in many of the patients sent to us who we consider better served by conservative management.

TOBACCO

Nicotine produces peripheral vasoconstriction. In a previous article in *The Journal of the South Carolina Medical Association*,¹ we showed, by thermographic pictures, the profound vasoconstriction effect of nicotine. The value of thermography in these patients was that when shown the effect of one cigarette on their blood vessels, many of the patients would literally throw their cigarettes away. It is well considered that nicotine contributes to the formation of vascular disease. It is undeniable that a patient should cease smoking when his vascular disease becomes symptomatic. It is extremely advantageous to the patient to have objective evidence that smoking is a part of his vascular problem. Thermography is most useful but is rarely available. If the physician can show the patient that changes in blood pressure, heart rate or skin temperature are affected by nicotine, the cessation of smoking is greatly facilitated.²

NUTRITION

Atherosclerosis is a condition of inappropriate lipid metabolism. In ethnic groups such as the Vietnamese and the Mexican Indians where diet is

low in fat and lifestyle requires high energy expenditure, atherosclerosis is minimal. In populations where omega-3 oils are used such as by Eskimos and Mediterranean groups, atherosclerosis is minimized. The average American, however, is raised on a diet inappropriately high in fat. We surveyed our hospital employees in 1987 and found that the average diet selected in our cafeteria had a fat content of over 50%. When confronted with the average American atherosclerotic, the physician must studiously outline a diet low in fat and consonant with expected daily caloric expenditures. We advise a diet certainly as low as 20% fat and hopefully approaching 10% fat. Protein should be tailored at 15% and the remainder is carbohydrate. The carbohydrate portion of the diet is optimally delivered with a variety of cereals, vegetables and fruits. The variety provides the balance of vitamins and minerals necessary, and the cereals, vegetables and fruits all provide enough fiber for optimal intestinal function and diminished cholesterol uptake. Minimization of fat is the prime focus of diet alteration and the patient must be educated to look for fat hidden in breads, desserts and food preparation. Additionally, he should be instructed to look for the types of lipids which benefit him and avoid those which prove harmful. He should avoid saturated fats. When oils are necessary, the best are soybean and olive oils.

SKIN CARE

Most of the patients who have come to amputation due to vascular disease have trauma as a culminating event. Often the traumatic event is not immediately recognized, especially in the neuropathic foot of the diabetic. Sometimes the traumatic event probably would have healed had the patient sought and received medical advice including antibiotics and skin care. We advocate that skin care of the feet and legs of the vascularly impaired extremity be focused on cleanliness, protection from excessive moisture or excessive dryness, and protection from trauma. If there is any tendency to minor abrasion, scratches, insect bite or other minor trauma in the lifestyle of the patient we recommend daily use of PhisoHex to minimize surface bacteria. Daily bathing, fresh clean socks and change of footwear if accidentally wet are advisable. Intense emphasis should be focused on thick cotton socks and excellent fit of all shoes. Sir Paul Brand³ had special shoes built

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for the neuropathic feet of his leper patients, a condition not basically unlike the neuropathic feet of some diabetic patients.

EXERCISE

Moderate exercise is excellent therapy for the vascularly impaired patient. With appropriate exercise the mitochondria of muscle cells increase in number and there is increase in oxidation capacity.⁴ With exercise, collateral blood supply increases and capillary networks become more profuse. The musculature of the heart increases in volume and strength and the myocardial arteries actually increase in size. There is even some evidence to believe that the atherosclerotic plaque is capable of diminution in size with appropriate exercise.

Exercise is considered appropriate when it is of the intensity to require a physiological response. Thirty minutes of exercise three times per week at an intensity to raise heart rate beyond 60% of maximum is deemed an intensity level sufficient to evoke beneficial physiological changes. Most vascular patients cannot exercise at this intensity. For them a good 30- to 60-minute walk on a daily basis is an approach to benefit. The mere focus of attention on exercise no matter how limited tends to have psychological benefits and be a protector against harmful stress.

POSITION

Position is more an important consideration in venous than in arterial disease though it can be a component of both. When venous insufficiency is present in the lower extremities there can be little benefit from sitting still. We advise our patients to be walking or to be in a position with the legs elevated. When sitting is mandatory at work or while traveling, we advise the constant movement of the legs and feet, and frequent standing and walking. When traveling in an automobile our patients are advised to stop on the roadside every 30 minutes and get out and walk for two to four minutes. The patient with incompetent veins should sleep with the legs elevated. This can be accomplished with eight-inch blocks beneath the foot of the bed or with the use of pillows or an elevation of the bottom portion of the mattress. The patient with arterial insufficiency should sleep flat in bed. If he has rest pain, he will get up and hang his feet downward. This symptom de-

notes an advanced and ominous stage of his disease.

SHOES, SOCKS, STOCKINGS, AND CLOTHING

The shoe is one of the most important considerations for the patient who suffers from vascular insufficiency. We advise a "comfortable" shoe and examine it personally. The use of soft, well-fitted athletic shoes is increasing in usage. Excellent walking shoes can now be attained and are generally well-designed to promote comfort, support and a minimum of trauma. Socks should be comfortable and clean. Color has no importance. Elastic stockings for the patient with venous insufficiency are excellent if they are individually fitted, do not bind proximally and are used while ambulating. There are no convincing data to indicate that elastic stockings are of value to the bedridden patient unless he is exercising his legs while in bed. It is the contraction of the muscles which pump blood back to the heart, not the elasticity of the stocking. The stocking simply provides a resistance for the muscle to work against so as to provide a pumping action.

PROSTHESES

A prosthesis should be changed if it is ill-fitting. The physician must constantly be aware of pressure points caused by prostheses. These occur frequently on the anterior bony surfaces of the leg and are heralded in their early stages by rubor and hyperpigmentation. Too frequently pain is absent until a catastrophic breakdown of skin occurs. Generally, commercial fitters of prostheses are quite willing to modify their product to individual requirements.

PAIN CONTROL

When vascular insufficiency progresses to the point of producing pain at rest, a critical lower limit of blood flow has been approached. At this point the risks of revascularization must be reanalyzed. If surgery is again judged infeasible, analgesics, hypnotics and narcotics may be necessitated. If such medications are insufficient for pain control, then only amputation remains. If amputation is resorted to, it should be performed at a level judged to be of the potential to heal and to be of permanent adequacy.

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STRESS

Each person responds differently to the stresses of societal living. If stress is considered by the physician to be a complicating factor of vascular insufficiency, it must be dealt with as definitely as smoking cessation. Stress, like nicotine, causes vasoconstriction presumably through the increased production of epinephrine. Stress and fatty diets are the sure combination of producing advanced atherosclerosis. The treatment of stress is to develop for the patient an appropriate change in lifestyle. This may imply marital counseling, change of job, cessation of political pursuits or simply finding a diversion which produces peace of mind. Stress may frequently be effectively countered with simple returns to the basics of living, farming, gardening, vacation, travel, etc. Combined with appropriate diet and exercise an active avoidance of stress can be meaningful towards better health.

MEDICATIONS

We do not consider that medications are the appropriate way to deal with atherosclerotic vascular disease. In some instances, however, they cannot be avoided. Aspirin in small doses is an effective inhibitor of platelet aggregation. Heparin in the hands of an intelligent out-patient can be used effectively to prevent thrombosis. Coumadin is certainly used extensively, is sometimes well-indicated, but probably is over-used. Both Heparin and Coumadin pose significant risks. They should both be avoided in persons who by their jobs or circumstances are at risk to trauma.

We have not seen remarkable benefit from vasodilators in patients whose vessels are rigidly atherosclerotic. We consider alcohol to be detrimental rather than beneficial. The drugs which are designed to lower cholesterol are, except in extreme cases, less effective than diet and exercise.

Medications, in short, do not materially affect the atherosclerotic process.

WORK

Beyond marriage and family, work is the most important factor of our lives. Enjoyable, productive work relieves more stress than it produces. It is frequently seen that relatively good health is enjoyed during our working years only to deteriorate upon retirement. In each vascular case we

elicit information about the patient's job and its relation to his symptoms. As examples, we have seen the hunt and peck typist with Raynaud's Syndrome in the typing finger. The jack hammer operator is another example of work-related vasospastic disease. The loom operator in a mill may show vascular compression of his subclavian arteries as may the weight lifter.

The relationship of the job to the vascular impairment is an individual search for information and logical insight into their relationship. The two are frequently related, sometimes as cause and effect, at other times as treatment or even cure.

EDUCATION

The education of the patient and his family is the most important aspect of conservative management. When a non-operative decision is made there is the potential for the patient to become depressed with hopelessness. It is at this moment that his attention can be captured with knowledge of himself and the feasibility of non-operative alternatives. To achieve this state, it has been our habit to acquaint the patient with pictures and drawings of his vasculature, indication of how his atherosclerotic lesion is disturbing flow (we refer to it as "like rust in a pipe") and specifically why an operation is not a wise choice. The patient should be taught how nicotine constricts blood vessels, compounding his ischemia and risking loss of limb. We show him his vascular studies and his angiograms to reinforce the credibility between doctor and patient. The patient should be well instructed in the principles of nutrition and given written material to guide him and his spouse in the selection and preparation of food. Exercise education is important including the alternatives to exercises which are difficult or impossible for him. We advocate bike riding or swimming for those who cannot walk well. Entirely different sets of muscles are used and oftentimes the motivated patient gains confidence and renewed capacity doing exercises he did not believe he was capable of. Finally, we try to educate the patient in the natural history of his disease condition, leaving a window of hope that by lifestyle change and dedication to health he can, in fact, become healthier.

SUMMARY

It is as important to recognize that some patients will not improve by operative surgery for

THE VASCULAR SURGICAL PATIENT

vascular disease. When a decision is made for non-operative management, responsibility dictates that the patient be given a regimen of measures designed for stabilization of his present condition and reversal of lifestyle trends which caused it. These include cessation of smoking, appropriate exercise and nutrition, excellent skin care, attention to clothing and shoes, management of prostheses, control of pain, and control of stress. A careful analysis of the patient's medications and his work environment must be made and tailored to his needs. Finally, the patient should be studiously educated as to his disease process and its relationship to his lifestyle. Only through under-

standing of the reasons for taking good care of himself can patients be effective in following their physician's advice. □

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UTILITY OF LESSER SAPHENOUS VEIN AS A SUBSTITUTE CONDUIT*

ARTHUR GRIMBALL, M.D.**
R. RANDOLPH BRADHAM, M.D.
P. REID LOCKLAIR, JR., M.D.

Occasionally patients present for both cardiac and peripheral vascular procedures in whom standard graft conduits are inadequate. Lesser saphenous vein may provide an alternate conduit of great utility in these cases. We report two such cases including brief information regarding the lesser saphenous vein and its harvesting.

Many thousands of vascular bypass procedures are performed annually in the United States. Because of the ready availability and/or superior patency rates, conduits of choice have become reversed or *insitu* greater saphenous vein, internal mammary artery, and prosthetic grafts. Inevitably, patients will present in whom such conduits are inadequate, unsuitable or unavailable. In such cases, the lesser saphenous vein should be remembered as a very satisfactory alternative conduit. We present examples of its utility for both cardiac and peripheral vascular cases, as well as tips regarding its anatomy and harvesting.

Case 1: An 81-year-old white female presented with severe exertional angina. Cardiac catheterization demonstrated normal ventricular function and severe three-vessel coronary artery occlusive disease. She was felt to need coronary artery bypass grafts to the right posterior descending, obtuse marginal, left anterior descending, and diagonal coronary arteries. She was known to have undergone bilateral complete greater saphenous vein stripping for varicosities some 30 years earlier. Assessment of her arm veins found them to be diminutive and unsuitable as graft conduits. Use of bilateral internal mammary arterial grafts would be inadequate for complete revascularization. The lesser saphenous systems were assessed by non-invasive means and found in the infrapopliteal area. They could not be traced to the

ankle. Nevertheless, it was decided to explore these veins.

She was taken to the operating room, and after the induction of general endotracheal anesthesia, she was placed in the prone position. The lesser saphenous veins were identified in each leg, and dissected out from the ankle to the popliteal fossa. These veins had a gross appearance similar to greater saphenous vein, and were felt to be quite adequate for use as graft conduits. Following closure of the leg wounds, she was replaced in the supine position and underwent uneventful coronary bypass grafting to the left anterior descending, diagonal, posterior descending, and obtuse marginal coronary arteries. Her postoperative course was unremarkable. The leg wounds healed nicely, and there was essentially no pedal edema noted despite absence of both saphenous veins bilaterally.

Case 2: A 67-year-old man presented with severe left leg claudication and a non-healing ulcer on the pad of the left third toe. Angiography demonstrated occlusion of the left superficial femoral artery with reconstitution at the level of the distal popliteal artery. The anatomy mandated a femoral-to-infrageniculate popliteal artery bypass. His past history was remarkable for coronary bypass graft times two with use of left greater saphenous vein. He also had undergone a right femoral-popliteal bypass utilizing right greater saphenous vein from the groin to the calf.

In order to achieve optimal graft patency, it was preferred to avoid crossing the knee joint with a prosthetic graft. At operation, a sufficient length of autologous vein graft was obtained by harvesting the distal remnant of the right greater saphenous vein, as well as the entire left lesser saphenous vein. When used together, these easily reached from the left common femoral artery to the left infrageniculate popliteal artery. Postoperatively, moderate pedal edema was noted on

* From the Department of Surgery, Roper Hospital, Charleston, S. C.

** Address correspondence to Dr. Grimball at 315 Calhoun Street, Suite 405, Charleston, S. C. 29401-1102.

USE OF LESSER SAPHENOUS VEIN

the left, but the wounds healed well, and arterial revascularization has been quite satisfactory with healing of the ulcer on the left third toe.

DISCUSSION

Although the lesser saphenous vein is not our first choice as arterial graft conduit, we have found it to be very useful in cases in which other conduits are unavailable, inadequate, or unsuitable. The quality and caliber of this vein is comparable to the distal half of the greater saphenous vein. By contrast, arm veins are of poor quality, and the patency rate of arm veins for use in coronary surgery is questionable.¹ While patency rates for lesser saphenous vein when used as coronary grafts have not been studied, they have been studied when used for lower extremity revascularization. Under these circumstances, the lesser saphenous vein appears to be comparable to greater saphenous vein in terms of patency.²

The lesser saphenous vein is fairly constant in anatomical position. It originates just posterior to the lateral malleolus and courses cephalad between the heads of the gastrocnemius muscle. It lies in a subcutaneous position from the ankle to the popliteal fossa. It pierces the deep fascial layer to enter the popliteal fossa, where it communicates with the popliteal vein. Careful dissection of the vein in the popliteal fossa can provide a surprising amount of additional length to the harvested conduit. The sural nerve parallels the lesser saphenous vein in the lower half of the leg and provides an additional landmark for its identification.

It is relatively easy to harvest the lesser saphenous vein using one of three approaches. Case 1

illustrates the most direct approach. The patient is placed prone, and the vein is identified with the sural nerve just posterior to the lateral malleolus. It is then dissected proximally to the popliteal fossa. More commonly, the vein is dissected out with the patient in the supine position. When this is undertaken, it is easiest to flex the hip 45 degrees and the knee 90 degrees, then internally rotate the hip. This exposes the lateral aspect of the leg, and the vein is again harvested from the ankle to the knee with the surgeon on the ipsilateral side as the vein is being harvested. Exposure is only slightly difficult in the popliteal fossa. When the surgeon works from the contralateral side, an assistant provides flexion of the hip and knee, and external rotation of the hip. In this circumstance, exposure is better in the popliteal fossa, but more difficult in the lower leg.

SUMMARY

The lesser saphenous vein provides a useful alternative graft conduit for both cardiac and peripheral vascular procedures. Its gross appearance and handling characteristics are similar to greater saphenous vein, and its patency rates appear comparable. It is harvested with minimal difficulty. Harvesting is well tolerated, even in the absence of the greater saphenous system. Its use should be strongly considered when standard conduits are inadequate or unavailable. □

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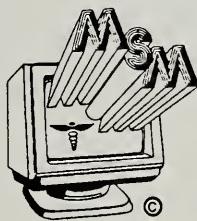
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SCMA NEWSLETTER

May 1989

ANNUAL MEETING HIGHLIGHTS

SCMA President, 1989-1990

Daniel W. Brake, MD, was installed as the 126th President of the SCMA during the Annual Meeting in Charleston. At the Inaugural Banquet on Saturday, April 30, Dr. Brake, a Charleston family physician, stressed the importance of physicians becoming involved in organized medicine in an effort to stem the trend toward socialized medicine in this country.

Elections

Results of the elections held during the Annual Meeting were as follows:

President-Elect:	John W. Simmons, MD, Spartanburg
Secretary:	Bartolo M. Barone, MD, Charleston
Treasurer:	John W. Rheney, Jr., MD, Orangeburg
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AMA Delegate:	Donald G. Kilgore, Jr., MD, Greenville
AMA Alternate:	J. Gavin Appleby, MD, Columbia

Auxiliary News

Mrs. William L. (Robin) Meehan was installed as President of the SCMA Auxiliary for 1989-1990. See the Auxiliary Page in this month's Journal for Mrs. Meehan's acceptance speech.

House Actions

During the closing session of the House of Delegates, the following resolutions were adopted:

A SC Chapter of the American Academy of Pediatrics resolution to urge all Legislators, school board members, educators, parents and other adults within SC to seek alternatives to corporal punishment within the educational system.

A Board of Trustees resolution to urge hospital medical staffs to work with their administrators and governing bodies in developing "smoke-free" hospitals and to urge all physicians to implement a no smoking policy in their office or other place of work, as well as a Lexington Medical Association resolution to strongly endorse the passage of the Clean Indoor Air and Promotion of Public Health Act of 1989 and to provide penalties and violations.

A Medical Aspects of Sports Committee resolution to reaffirm the SCMA position that the use of any substance taken in abnormal quantity or taken by an abnormal route of entry into the body with the purpose of increasing an artificial and unfair advantage is contrary to the ethical principle of athletic competition, and that the eradication of the usage of anabolic-androgenic steroids is in the best interest of sports.

A boating safety resolution supporting mandatory boater education was referred to the Board of Trustees for further consideration.

Awards

Walter Bonner, MD, received the Thomas E. and Shirley A. Roe Award for the best article by a practicing physician published in The Journal during 1987-1988. The article, titled "Yellow Fever at Mt. Pleasant, Charleston Harbor, S. C., in 1857, With a Review of its Consequences," was the first historical paper to win the award.

William F. Mahon, SCMA Executive Vice President, was presented the President's Award by outgoing President, Thomas C. Rowland, Jr., MD.

Susanne G. Black, MD, Dillon, received the A. H. Robins' Physician's Award for Community Service.

The South Carolina Political Action Committee (SOCPAC) was recognized by the American Medical Political Action Committee (AMPAC) as the outstanding state medical political action organization in the US. SOCPAC was recognized also with a first place AMPAC award in the "Contributions Per Member" category.

More than \$30,000 was raised during the past year by the SCMA Auxiliary to support medical education and research in SC. MUSC received a check for \$23,124.00 and the USC School of Medicine was given \$9,882.00 in ceremonies during the opening session of the SCMA House of Delegates on April 27.

The SCMA Auxiliary and the SC Institute for Medical Education and Research (SCIMER) presented joint scholarships based on need and merit to worthy students at both of the state's medical schools. Students from MUSC receiving scholarships were Scott Corley, Spartanburg; Timothy Jones, Summerville; Peter Neidenbach, Gainesville, Georgia; Jamie Rentz, Spartanburg; and Wade Strong, Marion. USC School of Medicine students who received scholarships were Dave Amaker, Swansea; Judson Gash, Charleston; David Hunt, Greer; Heather Gallman, Florence; and Trey Chandler, Bishopville.

Joseph T. Watson, a rising senior at MUSC, received the Stuckey scholarship, presented annually to a medical student from Bamberg County.

Awards to the media for exceptional reporting on medically related topics were presented to Lexie Chatham, SC Educational Radio; Sharon Spears, WRDW-TV; and Jeff Owens, the Sumter Item.

O'Neill Barrett, Jr., MD, Chairman of the SCMA CME Committee, was given a special award for his contributions to quality continuing medical education in the state.

HIGHLIGHTS OF BOARD OF TRUSTEES MEETING ON APRIL 26

The board reviewed correspondence from US Representative Butler Derrick who has introduced a bill, HR 1811, which proposes to eliminate MAAC limits, the medically unnecessary provisions which result in P.A.B. letters, and the notification requirement for unassigned claims for elective surgery when the patient is expected to incur more than \$500 in out-of-pocket expenses. The SCMA board will write Congressman Derrick expressing appreciation for this proposed legislation.

Reports on the activities of the SCMA's Resident, Student and Young Physicians' Section were received as information

Special guests to the meeting included: Tommy Walters, Medicare Ombudsman; Bambi Sumpter, EdD and Katy Wynne, EdD, the SC Department of Education's health educators who travel with the

Health Education Van which the SCMA, SCIMER and the Auxiliary donated; representatives of the JUA; and Charles Riddick, Blake Williams and Keith Waters, MD, of Carolina Medical Review.

In response to AMA interest, the board agreed to encourage discussion among the PRO, medical licensure board, the two medical schools and SCMA's CME Committee regarding the need to provide focused CME programs for enhanced clinical competence.

Following much review and discussion, the board voted to request deletion of physicians from proposed SC House Bill 3599. Although this bill appeared initially to offer a patient privilege for confidences told to a physician when being treated for an emotional or mental condition, further study indicated that the bill would not be beneficial. Information on how to obtain such protection under current law will be published in the upcoming issue of the Physicians' Risk Management Bulletin.

MEDICARE UPDATE

Referring Physician ID Number

The SCMA has been informed that, effective June 1, Medicare will require inclusion of the referring physician's Medicare Identification number on all claims for which a consulting code is used. Referring MDs are encouraged to provide their SSN to the consulting physician. Suggested mechanisms would be a referral card or superbill that could accompany the patient. If your Social Security number is on your prescription pad, this would be another means of transmitting the number to the consulting physician. We have evaluated statewide mechanisms, such as publication of a directory, and have found this would be an illegal usage of the Social Security number.

Further information will be provided in a BC/BS Medicare Advisory.

The Physician Payment Review Commission Report to Congress

The Physician Payment Review Commission (PPRC) was created in 1986 to advise Congress on reform of the methods used by Medicare to pay physicians. The PPRC, in its proposals submitted to Congress in late April, recommends that Congress enact legislation this year that would replace Medicare's current "customary, prevailing and reasonable" method of paying physicians with a fee schedule based primarily on resource costs. The fee schedule consists of a relative value scale (RVS), a conversion factor and a geographic multiplier.

The Commission recommends that the RVS comprise two cost elements: relative physician work and practice costs. Coding changes will be necessary in the important areas of surgical global fees and evaluation and management services, with time

incorporated into the definitions for visit codes. The Commission's formula for incorporating practice costs in the RVS allows for overhead to be calculated independently of physician work. Under this formula, changes in fees resulting from adoption of a fee schedule are estimated at about half as great as the preliminary estimates reported by Dr. Hsiao last year. Refined estimates of practice costs by specialty will be used initially in the RVS, but will be superceded later by estimates of practice costs by category of service. Further, the Commission recommends that premiums for professional liability insurance be treated as a separate factor in calculating practice costs.

The conversion factor proposed would transform the RVS into a schedule of dollar payments for each service. The geographic multiplier would reflect only variation in overhead costs of practice, and specialty differentials -- differences in payment of physicians of different specialties for the same procedure code -- would be eliminated under the fee schedule.

The PPRC is not recommending mandatory assignment but proposes the following policies to increase protection for beneficiaries: limiting charges for unassigned claims to a fixed percentage of the fee schedule amount; eliminating balance billing for qualified Medicare beneficiaries; and continuing the participating provider program and its payment differential which provides higher fees to participating physicians.

The PPRC recommends a transition that would adjust payments in the direction of the Medicare Fee Schedule to give physicians and beneficiaries time to adjust, allow for midcourse corrections and increase the chances that private payers will implement similar changes.

In attempting to reduce inappropriate and unnecessary services to contain costs while not sacrificing access and quality of care, the PPRC recommends three approaches:

(1) Giving physicians collective incentives to contain costs through expenditure targets. The expenditure target for physicians' services under Part B would be used to determine annual conversion factor updates under the fee schedule and would reflect increases in practice costs, growth in the number of enrollees and a decision concerning the appropriate rate of increase in volume of services per enrollee. Whether the update would be higher or lower than the increase in practice costs would depend on differences between actual and targeted expenditures.

(2) Increasing research on effectiveness of care and expanding the development and dissemination of practice guidelines.

(3) Improving utilization management by carriers and peer review organizations.

Participating Physicians

A flyer has been developed by the SCMA for display in your office regarding the benefits you provide your Medicare patients by your participation in the Medicare program. For a sample copy, please call Kim Fox at the SCMA office (798-6207 or 1-800-327-1021).

Non-Participating Physicians

A word of appreciation to the 941 physicians who have signed up for the SCMA's Personal Care program. For additional brochures or to obtain information, call Kim Fox at SCMA headquarters.

Medicare Advisory and Special Notice

A Medicare Advisory and a special notice regarding ICD-9-CM codes was recently mailed by BC/BS of SC. Be sure to review this important material.

SCREENING FOR NURSING HOME ADMISSIONS

Federal law has mandated that the state of South Carolina screen patients who are applying for nursing home admission to identify those with major psychiatric disease, mental retardation, or developmentally disabled without mental retardation. The object of this law is to assure these patients receive active treatment for their psychiatric or mental retardation condition.

The Community Long Term Care service managers will be screening all applicants. Those applicants who are positive for mental illness or developmentally disabled without mental retardation by the initial screen must be further examined by CLTC to determine the extent of their illness. Patients with mental retardation will be referred to the Department of Mental Retardation for examination.

An examination format and form for mental illness and developmental disability will be referred to the attending physician of the nursing home applicants. You should look closely at the instructions that accompany these forms and complete the forms as expeditiously as possible. Any undue delay in returning these forms will also delay final consideration of the applicant for nursing home placement.

A fee will be paid by the Finance Commission for this examination and the completion of the form. Medicaid patients will be billed in the usual manner on a HCFA form 1500 and a special form will accompany the patient on non-Medicaid patients. The fee established for this examination is \$75.00.

HHSFC encourages your cooperation so that this process can be

implemented smoothly. If you have any questions, please call J. Gavin Appleby, MD, (803) 253-6100.

MEDICAID UPDATE

Improved Access to Long Term Care Services

Responding to legislative concerns regarding limited access to needed long-term care services for Medicaid recipients, HHSFC, in mid-April, approved a package of actions, including the following, of interest to physicians:

- coverage will be extended to ICF patients in hospital swing beds - the swing bed rate will be based on the average hospital-based nursing home rate (upon approval by HCFA).
- administrative days will be covered for patients meeting SNF or ICF criteria, as long as such care is not available in a nursing home.

Less Than Effective Drugs (DESI) List

The State Health & Human Service Finance Commission has recently issued its new DESI list which supercedes the Medicaid bulletin dated August 4, 1986. The list contains those products currently marketed (or have had their approval withdrawn) and also evaluated as less than effective by the FDA. Such drugs are not reimbursable by Medicaid. To obtain a copy of the list or if you have questions, call your provider representatives at (803) 253-6179.

CERTIFICATION OF PHYSICIAN OFFICE LABS

Although OBRA-1987 stipulated that all labs which have a volume of tests in excess of 5,000 per year would have to meet all of the certification requirements of independent clinical labs effective January 1, 1990, subsequent passage of the Clinical Laboratory Amendments of 1988 established a July 1, 1991 implementation date of more reasonable standards.

At this time, it appears that the lab requirement of OBRA-87 will be repealed and hence the deadline for standards for physician office labs will be July 1, 1991.

Additional information will be provided as it becomes available.

AIDS UPDATE

The Social Security Administration has issued a detailed outline discussion of the Social Security and Supplemental Security Income disability programs and procedures, with special emphasis on AIDS cases. For a copy of this outline, contact Melanie

McLendon or Kim Fox at SCMA headquarters.

HANDICAPPED LICENSE PLATES

Physicians should be aware that, according to SC law, disabled license ID tags are authorized for only those persons (a) disabled by an impairment in the use of one or more limbs and required to use a wheelchair or (b) disabled by an impairment in mobility, but otherwise qualified for a driver's license as determined by the Highway Department. Handicapped Certificates signed by physicians on each license application form should indicate the permanency of limb impairment or the severity/permanency of mobility impairment.

PUBLICATIONS AVAILABLE

Available from the AMA are the following recent publications: Medicare Carrier Review: What Every Physician Should Know About "Medically Unnecessary" Denials (Cost: \$12.50) and Physician Guide to Home Health Care (Free of charge to AMA members; \$15.00 for non-members). For credit care orders call 1-800-621-8335, or write AMA, 535 N. Dearborn St., Chicago, IL 60610.

The South Carolina Physician's Handbook on Child Abuse and Neglect, by Otis L. Baughman, MD, and Martha G. Priest, MEd, can be obtained from Ms. Priest, AHEC Coordinator, Spartanburg Regional Medical Center, Spartanburg 29303.

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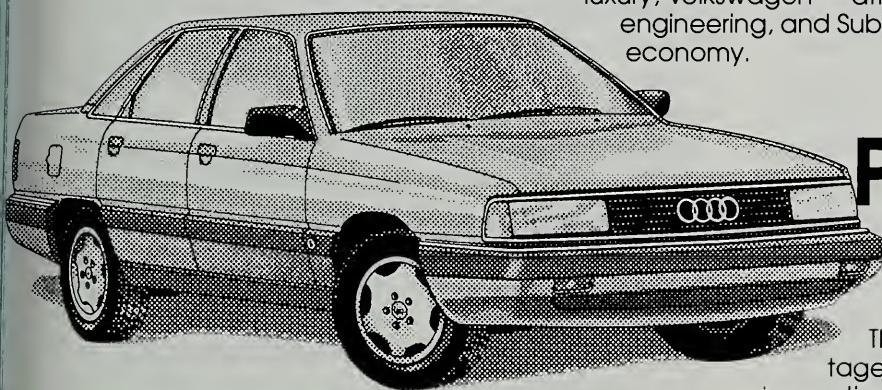
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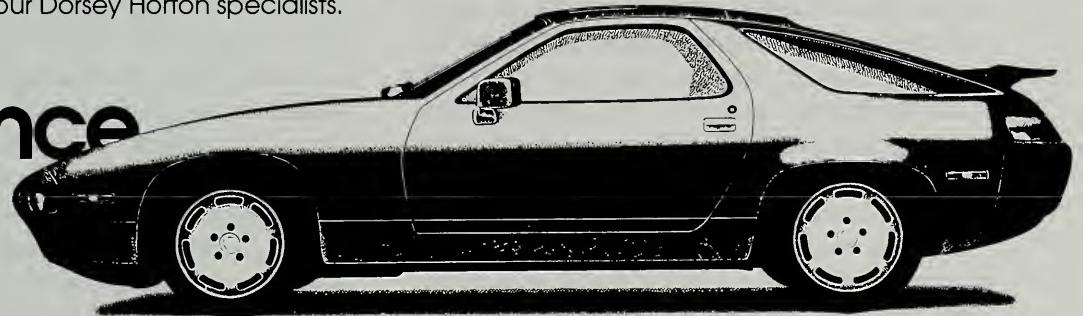
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TAKAYASU'S ARTERITIS

JOHN T. TOLHURST, M.D.*
GRADY H. HENDRIX, M.D.**

Takayasu's arteritis is a chronic inflammatory arteritis of unknown etiology, which affects primarily the aorta and its main branches, and occasionally the pulmonary arteries. There are isolated reports of involvement of the coronary arteries,¹ and hypotensive retinopathy has also been reported.² The arteritis may be divided into two phases: (a) an inflammatory phase which eventually leads to stenosis of the large vessels, but can lead to aneurysm formation, and (b) an ischemic phase, resulting from stenosis and secondary hypoperfusion of organs.³ Successful treatment of this disease with steroids and cytotoxic agents, when necessary, depends upon early recognition in the inflammatory phase to avoid the serious consequences of stenosis, leading to the ischemic phase.

In a study of radiographic and angiographic findings in 59 patients, 68% had abnormal chest x-rays, and stenosis of the thoracic or abdominal aorta was seen in 71%.⁴ In 21 of these cases, pulmonary arteriography was performed, and 86% (18) of those patients had abnormal occlusion, stenosis, or dilatation. There was no correlation between systemic arteritis and the extent of pulmonary involvement. Calcification of the aorta in Takayasu's arteritis is present in the aortic arch and descending aorta, in contrast to syphilitic aortitis, which usually exhibits calcification of the ascending aorta.

Takayasu's arteritis most often affects children and young women between the ages of 10 and 30, although at least one study demonstrated the mean age at diagnosis to be much older than this.⁵ Due to the fact that Takayasu's arteritis often presents with generalized symptoms of fever, malaise, anorexia, weight loss, arthralgias and myalgias, the interval to definitive diagnosis is often extended.⁶ In a study of 32 North American patients, both non-vascular symptoms (arthralgias in

56%, fever in 44%, weight loss in 38%) and vascular symptoms (arm claudication 47% and hypertension due to renal artery stenosis 41%) were seen. All patients had either multiple vascular bruits 94% or absent pulses.^{7, 8} Occasionally, neurologic symptoms such as dizziness, headaches, syncope, diplopia, amarosis fugax and paresis may be seen with vascular obstruction of the carotids leading to cerebral hypoperfusion.

CASE REPORT

The patient is a 45-year-old white female, initially diagnosed with Takayasu's arteritis in 1967. She presented post partum with a syndrome of severe headaches and hypertension with acute pulmonary edema. Cardiac catheterization at that time revealed severe coarctation of the proximal descending aorta to the intrarenal portion of the aorta. She underwent successful aortic bypass surgery shortly thereafter, and did quite well for the next eight years without the use of steroids or cytotoxic agents.

She was seen for routine followup at MUSC in 1975, and due to symptoms of decreased exercise tolerance and widened mediastinum on chest x-ray, she underwent cardiac catheterization, which revealed aortic regurgitation, dilatation of the proximal ascending aorta, narrowing at the origin of the left carotid, and total occlusion of the left subclavian artery. The aortic graft was completely patent.

Echocardiogram in December of 1979 revealed mild left ventricular hypertrophy, mitral insufficiency, and a normal aortic valve. Subsequently, she was seen for routine follow-up at MUSC in January of 1982 with EKG changes consistent with extreme left ventricular hypertrophy. Echocardiogram at that time demonstrated a very thick septum and thick left ventricle mass, with systolic anterior motion of the anterior leaflet of the mitral valve and aortic regurgitation.

In April of 1982, she was referred back to MUSC with complaints of fatigue, left and right arm weakness, and right arm numbness, and was electively admitted for cardiac catheterization

* Address correspondence to Dr. Tolhurst at: Family Medicine Center, Spartanburg Regional Medical Center, 101 E. Wood Street, Spartanburg, S. C. 29303.

** Department of Medicine, Medical University of South Carolina, Charleston, S. C. 29425.

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which the consulting cardiologist felt demonstrated little change since her 1975 catheterization. Due to the fact that her Westergren sedimentation rate had risen to 106 mm/hr, rheumatology was consulted, and they felt a trial of oral prednisone therapy was indicated. She was started on 40 mg of prednisone q am on 4/10/82, and this was continued for six weeks. The patient had an excellent response to steroid therapy as monitored both by symptomatic relief, a return of her upper extremity pulses, and a marked decrease in her sedimentation rate by 5/28/82 to 38 mm/hr. By that time, she had been tapered to prednisone dosage of 10 mg qod. She continued to do remarkably well over the next six years and was continued on prednisone the entire time due to persistent elevation of her sedimentation rate. She had several episodes of supraventricular tachycardia controlled by verapamil, and developed intermittent claudication of the upper extremities.

She was last seen in the Cardiac Clinic at SRMC in September of 1988 with complaints of lumbosacral and thoracic spine pain. Subsequent lumbosacral and thoracic spine films demonstrated no evidence of osteoporosis, and ultrasound of the abdomen demonstrated no evidence of aortic aneurysm.

DISCUSSION

Takayasu's disease remains a poorly understood entity from the etiologic standpoint. Many researchers feel it is almost certainly auto-immune in origin, although others feel the evidence is inconclusive.⁹ There have been various reports of association with tuberculosis, ulcerative colitis, glomerulonephritis, Chron's disease, and Still's disease.⁷ The diagnosis of Takayasu's disease should be entertained in any patient with radiographic abnormalities on chest x-ray, such as calcification or irregular contour of the aorta (especially in premenopausal females). Symptoms of paresthesias, arthritis, and arthralgias of the upper extremities, especially of acute onset, and physical findings of diminished or absent pulses of the upper extremities or vascular bruits, particularly in the neck area, should make one highly suspicious. Laboratory findings of unexplained elevations in the sedimentation rate and mild anemia are frequently seen. Once the diagnosis has been made, based upon arteriographic evidence and/or biopsy, management consists of early ag-

gressive steroid therapy,¹⁰ since both severity and duration of the inflammation may affect the degree of vessel involvement. Steroids must be used cautiously in the hypertensive patient, as fluid retention may induce severe hypertension. As reported in an NIH study, patients who do not respond to steroids at a dose of 1 mg per kg of body weight will sometimes benefit from cytotoxic agents such as cyclophosphamide.³

Surgical treatment, in the form of various bypass grafting procedures, is highly beneficial to most patients. In a French study of 39 patients, with a mean age of 33 years, 33 had operative intervention with only one operative death, which occurred two months after operation due to graft infection.¹¹ Of 21 hypertensive patients in this study, 11 (52%) were totally cured (normotensive without medications) and nine (42%) had significant reduction in severity, with the one remaining being the patient who died of infection. Fourteen of these 33 patients had operations on brachiocephalic lesions, and 27 of those 29 grafts (93%) remained patent. Twelve of those patients had reduction of their symptoms, but two continued to have upper extremity claudication. Surgical correction of pulmonary artery stenosis has been successfully performed in at least two patients.¹²

The long term prognosis of Takayasu's is difficult to assess due to the wide variance in severity, associated disease states, and complicating factors such as hypertension, smoking and hypercholesterolemia. In the North American study of 32 patients, only two of 32 died (median follow-up five years), one of aortic aneurysm rupture and one of pneumonia.⁸ In the Swedish study of 15 patients, six of the 15 died in the eight-year study period, but four of these were smokers and three also had hypercholesterolemia.⁵ In the French study, four of 33 (13%) of the patients died within two years. Clearly, early recognition of Takayasu's disease and early intervention, both medically and surgically, will affect the future prognosis for patients with this disease.

As illustrated by this case, long-term survival is possible, even with severe disease. Unfortunately for this patient, she has a very restricted lifestyle due to her cardiac status and upper extremity claudication. However the prognosis is not always discouraging. In the North American study of 32 patients, 27 were functionally assessed at five years. Twenty were working full time with minimal disability and seven had significant func-

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tional impairment. Again this emphasizes the need for early recognition and treatment of Takayasu's disease in the inflammatory phase, with the objective of preventing, or at least delaying, the ischemic phase. □

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PHYSICIAN MANPOWER AND G MEDICAL EDUCATION: A REVIEW WITH IMPLICATIONS FOR STATE POLICY DEVELOPMENT

JULIE JOHNSON McGOWAN*
G. DEAN CLEGHORN, Ed.D.**

In 1987, the Congress of the United States created the Council on Graduate Medical Education to address a number of issues concerning the future health of the country's population and to formulate public policy regarding those issues. The areas analyzed included the relationship between graduate medical education and quality health care, potential funding sources for such education, the underrepresentation of minorities, and the impact of foreign medical graduates on graduate medical education. The issue that generated the greatest controversy and seemed to pervade all others was the question of adequate physician supply for demand. The question has repeated itself throughout the history of this country and is now being addressed in South Carolina.

THE SUPPLY VERSUS DEMAND PENDULUM

In the Jacksonian era of the 1830s when deregulation was the byword, medical schools proliferated from four to over 80 by 1876.¹ In this climate of deregulation, professional health care organizations were born of a need for self-regulation, and with the founding of the American Medical Association (AMA) in 1847 and the Association of American Medical Colleges (AAMC) in 1876, physicians found themselves as active participants in the formulation of governmental policy.² In 1910, under the auspices of the AMA's Council on Medical Education and with the help of the Carnegie Foundation for the Advancement of Teaching, Abraham Flexner published his

landmark study on medical education,³ which resulted in a swing of the pendulum and the closing of many medical schools, and demonstrated unequivocally the power of self-regulation within the profession.

With the dramatic decrease in the number of medical schools, from 160 to 60, after the publication of the Flexner Report, the 1920s saw a marked decline in the availability of physicians to treat the rural populace and the poor. Philanthropic organizations such as the Rockefeller Foundation and the Duke Endowment came to the fore, and in addition to calling for the creation of new medical schools to meet these needs, they offered financial incentives as well. Again, a swing of the pendulum took place.

During the 1930s, both the AMA and the AAMC began to question the efficacy of creating more medical schools, and the first suggestions of the potential of an oversupply of physicians began to arise. Although no drastic reduction in either the number of schools or the number of matriculants was implemented, medical schools began to take a leadership role in actively improving the quality of their product.

World War II increased the demand for more physicians, and the federal government not only pressured medical schools to increase enrollment to meet the war needs, but with the passage of the Hill-Burton Act in 1948, which created rural hospitals, and the expansion of the VA hospital system, it also insured a domestic need for more physicians. The AAMC called for an expansion of the current medical school capacity to educate physicians, and the Truman Commission of 1949-50 agreed.⁴

Although the AMA did not actively support the call for increased class size or the need for new medical schools in the late 1940s and early 1950s, they did join with the AAMC in the early 1960s in

* Address correspondence to Ms. McGowan at: Library, University of South Carolina School of Medicine, Columbia, S. C. 29208.

** Executive Director, South Carolina Area Health Education Consortium (AHEC), and Associate Professor, Department of Psychiatry and Behavioral Science, Medical University of South Carolina, Charleston, S. C.

PHYSICIAN MANPOWER

voicing concern over a probable physician shortage in the near future, which, they suggested, required immediate action on the part of the federal government. Immediate action was forthcoming with the passage of the first Health Professions Educational Assistance Act in 1963, which provided money for the construction of new schools, the expansion of existing ones, and money specifically designated for medical student loans.⁵

MEDICARE and MEDICAID were enacted in 1965 and by 1970, the Carnegie Commission called for a 50 percent increase in medical school enrollment, with concomitant federal funding, to meet the perceived need.⁶ The 1971 Health Manpower Act provided additional money to existing medical schools to increase class size and encouraged two year schools to add the third and fourth clinical years. The era of the Great Society had given birth to what appeared to be a limitless expansion of medical education capacity aimed at providing health care through government support for the great underserved masses.⁷

However, in 1973, two years after the passage of the 1971 Health Manpower Act, Caspar Weinberger, then Secretary of the Department of Health, Education, and Welfare, began looking at the total physician population, the anticipated graduates of the extant medical schools, and the numbers of foreign medical graduates coming into the United States to practice, and he concluded that a potential shortage of physicians no longer existed, but rather, an oversupply appeared imminent.⁸

OVERSUPPLY PROJECTIONS IN RECENT YEARS

In 1979, Joseph Califano, U.S. Secretary of Health, Education, and Welfare, embraced Caspar Weinberger's conclusion, and warned physicians at the Plenary Session of the Annual Meeting of the Association of American Medical Colleges that action needed to be taken immediately to forestall a serious oversupply of physicians by the year 2000. He did, interestingly enough, admit that the potential crisis was due in part to the zealous efforts on the part of the federal government to ward off the projected shortfall of physicians, about which there was much concern in the 1960s.⁹

One year later the final report of the Graduate Medical Education National Advisory Committee (GMENAC) was published. The Committee, established in 1976 under the auspices of the De-

partment of Health and Human Services, to look at physician supply from the perspectives of geographic and specialty maldistribution, concluded that there was indeed the probability that a surplus of 70,000 physicians would exist by 1990. However, in some specialties and some geographic areas, shortages would continue or become apparent. Therefore, graduate medical education should be considered as one of the key elements to the formulation of any policy concerning physician manpower.¹⁰

The GMENAC was not the only federal mechanism for collecting physician manpower statistics. The Health Resources Administration via its Manpower Analysis Branch of the Bureau of Health Manpower (BHM) had been empowered, under the Health Professions Educational Assistance Act of 1976, to collect data on the supply and requirements of the physician population. The BHM report, first published in 1978, also projected an oversupply of physicians, with the numbers of active physicians approaching 600,000 by 1990, compared to 450,000 in 1980 and 525,000 in 1985, suggesting a net increase of 75,000 every five years.

Both the GMENAC and the BHM were directed to assess physician supply and requirements based on national health needs. The Bureau of Labor Statistics of the U.S. Department of Labor undertook the same project with a different end in mind. Their data collection was directed at assessing the situation from a national economic standpoint as input to forecasting the future GNP. Although cross-profession manpower statistical measurements had been carried out from the Bureau's inception, the Bureau of Labor Statistics in the late 1970s endorsed the BHM projection model (called "SOAR," or Supply Output and Requirements) as being superior to its own and accepted its conclusion that an oversupply of physicians was probable by 1990.¹¹

In an effort to evaluate the presumption that an oversupply of physicians would indeed occur by 1990, based on the GMENAC and the BHM reports, the Senate Committee on Labor and Human Resources requested that the Office of Technological Assessment (OTA) look at the two reports to determine whether the conclusions were valid, and, if so, what recommendations might be forthcoming. The result of this effort was a publication entitled *Forecasts of Physician Supply and Requirements*.

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The publication primarily addressed the statistical methodologies used by the GMENAC and the BHM, the former based on goal-driven, medical opinion and the latter on trend projections. Both methodologies, incorporating supply and requirements models, complemented each other, and both arrived at the same conclusions, specifically, that an oversupply of physicians appeared imminent, although certain specialties and locales might experience shortages. However, the OTA (1980) qualified its conclusion from the GMENAC and the BHM reports as follows:

The final and most important observation is that the forecasting process has remained too technical a process, where statistical techniques, economic knowledge, and medical expertise greatly influence the process. Yet, more often than not, the basic assumptions adopted in the methodologies are policy ones. This is particularly true for projections of the future supply of physicians and decisions on specialty distribution requirements. Further, policies that have been made and are under consideration directly impact on the projections, yet the reliance on historical data can systematically underestimate the effects of such policies.¹²

Numerous other reports concerning physician manpower projections, both from the public and the private sectors, have served as catalysts for or been published since the GMENAC and the BHM reports. Both the AMA and the AAMC created task forces to look at the physician supply question. In response to the AMA Task Force on Physician Supply recommendations, the AMA Board of Trustees embraced a physician manpower research agenda and charged the AMA Center for Health Policy to undertake the effort. The initial outcome was the publication of a monograph in 1987 which contained a summary of the previous attempts to accurately quantify and project physician manpower as well as an introduction of the AMA Demographic Model of the Physician Population, with concomitant data based on a number of variables. The underlying conclusion was that the numbers of physicians would continue to rise although the rate of gain was indeterminate.

A thrust of the AMA Demographic Model was to look beyond the obvious when projecting physician supply. The earlier models were primarily based on the annual addition of medical school

graduates to the workforce and the decrease in numbers of physicians based on retirement. One of the main elements of the AMA Model was the inclusion of a number of variables into a fluid model to arrive at a variety of outcomes based on different scenarios. Among the variables analyzed were the projected increase in foreign medical graduates, the trend towards more females entering the profession, the average indebtedness of medical school graduates, and projected earnings.¹³

Each of the variables has been addressed to a greater or lesser extent in the literature, with the impact of foreign medical graduates receiving the most attention. Obviously, if the country were to allow unlimited immigration of foreign medical graduates, a physician surplus would certainly result. The potential problem was addressed with the passage of the 1976 Health Professions Educational Assistance Act, which included a provision to limit such an influx. However, that specific limitation had certain drawbacks, including the fact that many foreign medical graduates have chosen to practice in underserved areas,^{14, 15} and that medical services supported primarily through graduate medical education were often provided by foreign medical graduates filling lower paying residencies.¹⁶

At the other end of the spectrum, many felt that in addition to creating a physician surplus, the migration of foreign medical graduates to the U.S. portended lower quality of health care,¹⁷ a brain drain from underdeveloped countries contributing to a world health crisis,^{18, 19, 20} and a national policy statement that would undermine the U.S. commitment to international health.²¹

Another variable of marked effect on manpower projection was the trend that increasing numbers of women were graduating from medical schools and entering the workforce. Studies have shown that their productivity has traditionally not been as high as that of their male counterparts based on professional leave time mandated by family commitments. Therefore, although total numbers of physicians were indeed increasing, factoring in the lesser amount of time available to see patients would effectively lessen the aggregate physician/patient ratio.^{22, 23}

Along those same lines, the changing lifestyle of the traditionally white male recent graduate will certainly have a major impact on the changing marketplace. Both residents and medical students, in increasing numbers, are married, with

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the concomitant commitment to family life and shared responsibility demanded by today's generation of young marrieds, many with two careers. This again lessens the total work week hours available to see patients.²⁴

Even potential physician income must be considered. Recent graduates are now making informed choices upon graduation (or even before) concerning their practice options, whether group or solo,²⁵ rural or urban,^{26, 27} HMO's or third party practice management.²⁸

NEW PROJECTIONS: POSSIBLE SHORTAGE

In the early 1980s, Uwe Reinhardt held an economist's point of view of the physician surplus that the demand for physician incomes would exceed the supply of physician incomes. However, in his address to the AAMC in November, 1987, he said that, as physician incomes continue to rise, and with a reduced likelihood of socialized medicine in the U.S., evidence of physician oversupply is less than convincing.

As previously mentioned, the AAMC appointed Task Force on Physician Supply is studying the manpower problem, and one of its charges was to look at the projected physician surplus in terms of identified advantages and disadvantages. Their findings were summarized in a recent report, and the conclusions are not surprising. The advantages to a surplus include: increased health care for the population with a slight reduction in mortality, lower unit costs or reduction in price increases, expanded services (i.e., house calls, more care for the underserved), increased physician supply in rural and urban poor areas, reduction in need for foreign medical graduates, more interest in, and availability of, physicians for international health care.

The disadvantages are the use of unnecessary procedures to increase income, an increase in total costs of health care due to increase in consumption (although relative unit costs might decline), not enough practice to insure high level of skills, a general undermining of morale, a greater move towards industrialization of medicine thereby lessening practice choices, the potential for underemployment and a decrease in minority opportunities when the need is increasing.²⁹

The relative advantages and disadvantages of an oversupply may be moot issues. Two articles in the April 7, 1988 issue of *The New England*

Journal of Medicine predict a probable shortage of physicians by the early years of the next century. They predict that the demand for physicians will increase as a result of the aging population, more competitive medical plans, the impact of AIDS, the increasing minority population.^{30, 31} They further address the complexity of attempts to make long-term predictions concerning physician manpower and urge caution about establishing policy based on such predictions.

The Council on Graduate Medical Education held two days of hearings, November 19 and 20, 1987, to receive input from the representatives of 50 organizations about their positions regarding a number of issues, including the adequacy of physician manpower. The testimony revealed disagreement about whether or not an oversupply was imminent. However, there was consensus to expend greater effort to meet the health needs of the underserved; and strong recommendations were made that the federal government adopt a policy to increase graduate medical education programs directed towards these goals.³²

NEEDED ACTION

Two questions, then, must be asked. Based on current data and available statistical methodologies, can we accurately project the physician manpower supply and demand, taking into account the magnitude of variables that exist in the current market? And, if such a projection can be made, which is doubtful, should policy decisions be made to attempt to influence numerical outcomes, especially in light of those same variables that make the basic projections virtually impossible? Answering these questions requires several considerations which are discussed below in order to clarify what steps should be taken.

The American Medical Association, while maintaining that current trends suggest an oversupply of physicians by the year 2000, voiced support of insuring adequate numbers and funding levels of graduate medical education opportunities. The AMA concluded that reductions in numbers of physicians must begin at the undergraduate medical education level and through limitations on foreign medical graduates entering the country. Any attempt to cut back graduate medical education programs could be severely damaging to both recent graduates and local health care. And, consideration should be given to

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increased funding to reduce requisite weekly hours of residencies.³³

The statement of the Association of American Medical Colleges³⁴ complemented that of the AMA. The AAMC endorsed the concept that education must be the primary goal of residency training and that adequate funding levels for such education must be maintained. It also concurred with several of the principles of the Council on Graduate Medical Education, namely that steps must be taken to develop and finance alternative educational programs for residents in non-hospital settings, and that emphasis must be given to encouraging specialization in primary care resident education to meet the growing needs of society.

The first of ten principles of the Council on Graduate Medical Education, circulated prior to the open hearings, stated that: "The primary concern of the Council must be the health of the American people. There must be assured access for all to quality health care. Concern for the well-being of the health professions, medical schools, and teaching hospitals, while important must be secondary to the above concerns."³⁵ The AAMC, as well as the American Medical Student Association, did take issue with this statement, suggesting that there was actually a causal relationship between the two, with a vital health care system being necessary to insure a healthy populace.

The Council's recommendations for public policy emphasize graduate medical education as vital to the health of the community. No recommendations were put forth for broad changes in total numbers of residency positions.

Another policy recommendation suggested by the AAMC Committee on Implications of Physician Supply for Resident and Fellow Education,³⁶ was that a physician manpower projection model be created, predicated on demand or market economy, and that this model be used to analyze physician supply on a regular basis. The data collected could be used, especially, in the determination of geographic or specialty needs; and steps could then be undertaken to alleviate identified shortages.

The underlying universal assumption here is that an oversupply in any particular area of the economy would be self-correcting, as is usually the case in a capitalistic society, and that federal policy is mandated only as a corrective measure to

support the underserved. This concept can be as readily applied to a service industry as to a product-based one, and, in general, has held true for the medical profession as well.

Both the government and the medical profession have spent a great deal of time, effort and resources on the process of projecting physician supply and demand, the potential ramifications of the data collected, and the impact of the outcomes on graduate medical education. That a problem exists (beyond certain geographic and specialty areas) has as yet to be ascertained. And without a problem, any steps taken to "correct" one could have broad negative repercussions for future health care and the profession that serves it.

Graduate medical education is endemic to the education of future physicians. Change in methodology is probable, and even desirable, given the fluctuations of today's society, the need for more primary care physicians, and even the changing lifestyle of the recent medical school graduates themselves. But change does not portend cutbacks in opportunity, nor in the political, philosophical, and financial commitments to graduate medical education.

IMPLICATIONS FOR THE STATE OF SOUTH CAROLINA

South Carolina has been forward thinking about these issues. Having recognized the pendulum swings, the statewide Consortium of Teaching Hospitals (South Carolina Area Health Education Consortium—S. C. AHEC) stopped short in 1986 from declaring an oversupply of physicians in this state. Rather than take action to change, the Consortium chose to more carefully monitor the situation longitudinally. Taking the broader view seemed advisable in 1986, and the 1988 *New England Journal* articles have supported the view.

So how is the state regarding the physician manpower condition? There are now in excess of 500 positions going unfilled. Through the AHEC system, the S. C. Hospital Association, the S. C. Primary Care Association, the S. C. Department of Health and Environmental Control and others, the state is stepping up recruitment and retention efforts and seeking to thoroughly investigate before moving to increase or decrease the number of physicians being trained.

The Ervin Report called for the Consortium "to

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observe physicians (longitudinally) in their practice environment, monitor trends in their productivity levels and make note of possible changes in the patient pool.³⁷ This project will provide empirical evidence needed to better assess manpower needs and projections for graduate medical education. This AHEC project involves both state medical schools and all community teaching hospital residency programs. Other efforts are already under way addressing physician manpower and maldistribution. Therefore, the state has a mechanism for addressing the issue through the S. C. AHEC.

The mechanism needs to be fully deployed with the goal to establish a clear policy to govern decisions about the number of programs and residents and state support for graduate medical education. In addition to the S. C. AHEC with the two medical schools, the non-teaching hospitals, the Commission on Higher Education and the S. C. Medical Association should provide input in formulating this policy.

The need is great for a broadly-based and accepted state policy on graduate medical education, especially in light of growing costs at a time when federal dollars are shrinking. This policy will help insure that South Carolina continues to prosper in providing health care for its citizens. □

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MEETING ANNOUNCEMENT

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Editorials

In this issue of *The Journal*, McGowan and Cleghorn comment on graduate medical education in South Carolina. To complement this article, the deans of both of our state's medical schools were invited to comment on the development of policy regarding medical education in South Carolina. In the editorials below, Dr. G. William Bates points out that our state has been among the nation's leaders in efforts to predict the supply-and-demand of future physicians, while Dr. J. O'Neal Humphries emphasizes the present and future role of the Joint Board for Health and Medical Education established in 1983.

Dr. Bates' editorial was written shortly before his resignation from the position as Dean at the Medical University of South Carolina. In wishing Dr. Bates well in his future endeavors, it seems appropriate to thank him not only for his able service to the Medical University but also for his interest in the SCMA and in *The Journal*.

Guest editorials reflect the opinions of the authors and do not necessarily reflect the opinions of the Editorial Board or the leadership of the South Carolina Medical Association.

—CSB

POLICY DEVELOPMENT FOR MEDICAL EDUCATION IN SOUTH CAROLINA

In this issue of *The Journal*, McGowan and Cleghorn review the changes occurring in undergraduate and graduate medical education. National attention on medical education has been focused on physician supply and demand for the 21st century.

I was a member of the Association of American Medical Colleges Task Force on Physician Supply (1987-1988) that was charged to evaluate physician manpower needs. After several lengthy meetings in Washington, D. C., our committee was unable to come to any clear conclusions about physician supply and demand for the 21st century. Because of changes in practice patterns, the occurrence of new illnesses (e.g. AIDS), the increasing number of women physicians, and the technological advances in medicine, manpower projections are—at best—shaky speculation.

South Carolina has been a leader in attempting to predict state need for physicians. In 1985 a consensus decision was made to reduce the number of matriculating students at the Medical University of South Carolina from 165 students per year to 125 students per year. At the same time, a decision was made to increase the number of students admitted to the University of South

Carolina School of Medicine to 75 students per year. Thus, it was expected that 200 physicians would be graduated annually from the two South Carolina medical schools. This decision makes sense.

Given the population of South Carolina and given the fact that most matriculants to South Carolina medical schools are South Carolina residents, 200 medical students each year should ensure a qualified applicant pool and an adequate number of graduate physicians. Moreover, this decision makes classes in the two schools small enough to provide students with individual faculty attention.

Medical education does not end when the degree of Doctor of Medicine is conferred. Medical education continues for another three to seven years to produce primary care physicians and specialists in the various fields of medicine. South Carolina is farsighted by making financial provision for graduate medical education, and should continue this support into the future.

There should be a balance between the number of graduating physicians and the number of residency positions available for graduating physicians. In 1989, 187 first-year graduate medical

education positions were available in South Carolina through the two medical schools and the AHEC practice sites. This is close to an even balance, although an additional 13 positions should be added in the future to attain equilibrium. Otherwise, South Carolina will export 13 physicians annually.

Of the graduate medical education positions available, 53% are in primary care specialties (family medicine 29%, internal medicine 16%, pediatrics 9%). The remaining 46% of the residency positions were offered in the other specialties of medicine.

It is my opinion that South Carolina has made a rational estimate of physician manpower needs. However, the future must be viewed with caution. As physician supply and demand changes in South Carolina, we must stand ready to make appropriate changes in undergraduate and graduate medical education.

—G. WILLIAM BATES, M.D.
Dean, College of Medicine
Medical University of South Carolina
Charleston, S. C.

WORKING TOGETHER MAKES SENSE AND PROGRESS

The state of South Carolina has made remarkable progress over the past 20 years in the area of graduate (medical school) and postgraduate (residency training) medical education.

In 1974, the statewide Family Practice Residency Program was established in the six community teaching hospitals located in Columbia, Greenville, Spartanburg, Anderson, Greenwood, and Florence.

In 1975, student elective opportunities for the students of the College of Medicine of the Medical University of South Carolina (CM-MUSC) were established.

In 1977, the second medical school, the University of South Carolina School of Medicine (USC-SM), located in Columbia, admitted its first students.

In 1978, state funding to provide some of the costs of residency training other than in Family Practice was established under the program known as "Graduate Doctor Program."

In 1983, the Joint Board for Health and Medical Education (Joint Board) was established as a voluntary cooperative effort between the Medical

University of South Carolina and the University of South Carolina. This group has developed a plan for adjusting the number of medical students admitted to the two schools each year. It has been agreed that about 125 students will be admitted to the school in Charleston yearly and about 75 students admitted to the school in Columbia yearly. These figures were accepted by the Joint Board following two surveys and studies to identify the proper number. This number of 200 medical students between the two medical schools was based on the number of South Carolinians interested in obtaining a medical education, the financial burden on the state, and the need for physicians in South Carolina, especially rural South Carolina.

The Joint Board is in a position to regularly review all of these factors and adjust the numbers of medical students as it seems appropriate for the needs of South Carolina. Recently, the Joint Board agreed to support the CM-MUSC development of an M.D./Ph.D. program to train medical scientists. It is now appropriate that a process be developed to study the need for residency positions

throughout the state. This process would attempt to respond to the dynamic shifts in physician manpower needs and distribution in the state of South Carolina. It would address the numbers and locations of the various specialty and subspecialty residency training programs within the state. It is appropriate for the residency training site, in co-operation with the two medical schools, to develop a plan for such a process and then present this plan to the Joint Board for approval. It may be necessary to establish a consultant group to help

develop the plan.

I strongly support an organized planning process to develop a policy on residency training. This would help avoid a haphazard growth of various programs dictated more by local self interest than on statewide needs.

—J. O'NEAL HUMPHRIES, M.D.
Dean, School of Medicine
University of South Carolina
Columbia, S. C. 29208

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APRIL 29, 1989



It is indeed a privilege for me to stand before you tonight as your new President.

Growing up in Lake City, South Carolina, I was greatly influenced by my uncle, Dr. Dexter Evans, a general practitioner who dedicated his life to the sick. In the absence of a hospital, Uncle Dec made rounds in his patients' homes. Most of his holidays were interrupted by patients requiring care. He was available 24 hours a day, seven days a week. His type of dedication and devotion is something this generation does not have to bear. He died of carcinoma of the lung when I was in medical school. I have never been to a funeral where I have seen more community response and love. The church was packed; the church yard and streets were full of people showing their respect to a man who had devoted his life to them. I could never begin to fill his shoes, but I knew as a child that I wanted to be a physician.

When I received my M.D. degree, I realized that this was a gift I should cherish. There are so many people who play a part in our education. When we take the Hippocratic Oath we are accepting a tremendous responsibility. I believe our medical responsibilities should be

First, to provide quality medical care for the sick.

Second, to discipline ourselves to insure that quality.

Third, to be an observer and spokesman for health care and insure access to quality care for all Americans.

And last, but certainly not the least—to become involved in organized medicine. *THIS IS THE ONLY WAY WE CAN FULFILL ALL OF THE OTHER RESPONSIBILITIES.*

It is not enough for us to take our M.D. degree and use it for our own benefit. It is important for us to give something back to the system which shaped us. Let's look at each responsibility:

1. OUR FIRST RESPONSIBILITY IS TO PROVIDE QUALITY MEDICAL CARE FOR THE SICK. Our oath is a public promise to be competent and to use that competence in the interest of the sick. Our medical knowledge has been passed on by our forefathers in medicine. Much of this knowledge has been gained by observing and treating generations of sick people. The state has contributed considerable funds to our education, approximately \$240,000 per student at this time. We must not forget that the sick person is in a "uniquely dependent, anxious, vulnerable and exploitable state." Therefore, the physician's knowledge is not individually owned and should not be used primarily for personal gain, prestige or power. Rather, the profession should hold this knowledge in trust for the good of the sick. I am appalled and ashamed of the few physicians who have taken this degree and the respect it holds and tarnished it with their get-rich-quick clinics.

2. OUR SECOND RESPONSIBILITY IS TO DISCIPLINE OURSELVES TO INSURE THAT QUALITY. I think the time has certainly come for us to clean up our own house. Beginning in the mid-1970s while the PRO was reviewing for federal insurance programs, the SCMA had its own peer review committee to review for private insurance carriers. The committee saw cases of physicians who grossly over-utilized services and practiced poor quality medicine. It was an extremely effective committee. Now

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that we have what we feel will be a fair and effective PRO in South Carolina again, it is time to reactivate our own peer review committee for private insurers and to give fair warning that the SCMA will be looking closely at physicians who are not honoring their oath.

3. OUR THIRD RESPONSIBILITY IS TO BE AN OBSERVER AND SPOKESMAN FOR HEALTH CARE AND TO INSURE ACCESS TO QUALITY CARE FOR ALL AMERICANS. In observing the health care industry, we find major problems with government interference, growing numbers of uninsured or inadequately insured patients, and a smaller percentage of private-pay patients. It is my belief that we are currently heading toward a completely government controlled or socialized system. If we do not get all the parties involved and come up with a recommendation to alter the current trend, we will all be working for the government in the near future.

Let me give you some statistics that will confirm my projections. In 1965, Congress decided that we needed a health care system for the elderly and passed the Medicare law. The AMA lobbied heavily to try to convince Congress that Medicare should only cover the people who need it and let the wealthy pay for their own health insurance. As you know, from our deficit spending, Congress is eager to give away money they don't have in order to get votes. So, instead of accepting the AMA's recommendation, Congress passed Medicare and included everyone over 65 regardless of income. But when Medicare was passed in 1965, the life expectancy was 69.5 years. At that time it appeared that on the average Medicare would only have to provide health care for people from age 65 to 69. That life expectancy has now increased to 75 years, and the Medicare enrollees have expanded from 15.5 million to 30 to 35 million. In 1965, we had 12 working people to pay for each Medicare recipient. We are now down to four. In the next decade that number will be two.

When Medicare was initially passed in 1965, reimbursements to hospitals and physicians were equal to private insurance companies. Over the past 24 years we have seen Medicare continue to demand the same, if not better, services—only to pay less than the private sector pays for those services—and in some instances even less than it costs to provide them. Yet, prior to 1965, there was a segment of the population that didn't pay their bills, but that percentage was relatively small. Everyone paid a little more for his medical bills to cover the people who could not pay. We took care of anyone who walked into our offices. No one was refused because he could not pay a bill. Just recently, to insure that the Medicare patient in the 150th percent of poverty level would not hesitate to come to a physician, the SCMA implemented a Personal Care plan which guarantees acceptance of assignments for these patients. The majority of physicians today do not turn people away because they cannot pay for their care.

Of course, as the number of Medicare patients increases, the percentage of the full-paying patients decreases. In 1987, Medicare and Medicaid accounted for 47 percent of all hospital admissions and 53 percent of all hospital days. The Hospital Association tells me that now if a hospital has over 55 percent Medicare and Medicaid patients, that hospital is in financial trouble. We are seeing a number of quality hospitals, especially small hospitals, in financial trouble at the present time. It is not hard to understand that if the hospital is receiving only 50 cents on the dollar for 47 percent of its patients, then the private-pay patients will have to pick up that extra 50 cents plus pay their own full dollar of service. That is one of the reasons hospital insurance premiums are skyrocketing. One hospital administrator told me recently that he will have to increase his rates to the private patient by 30 percent next year to account for the losses from Medicare and Medicaid.

Of course, as the premiums for hospital insurance continue to rise, the lower socioeconomic group that previously provided its own health insurance cannot afford it. Thus, a larger segment of the population is uninsured. Approximately 35 million Americans have inadequate insurance or no health insurance at all. Of that number, 49 percent are working adults, 33 percent are children under 18 and only 18 percent are non-working adults. Of course, that continues to decrease the percentage of paying patients. Big business is screaming because they are the ones picking up the tab for all these government patients who are inadequately funded.

On the other hand, there are approximately 300,000 millionaires over 65 in this country who don't need Medicare who should be paying at least as much for their hospital premiums as the poor, hard working, lower socioeconomic group. I know when I mention "means testing" for the elderly, they get upset. But as

PRESIDENT'S PAGES

deserving as the elderly are of medical services they haven't "paid for them" as they contend. Their premiums only paid for 23 percent of Part B services this past year. The other 77 percent of those services were financed through the general fund—your income tax and mine. The average retiree can expect to receive \$28,255 in Medicare benefits after having paid only \$2,640 in Medicare taxes. Income taxes pay the other \$25,615. It is no wonder the AARP is so vocal. George Bernard Shaw described this situation perfectly when he said, "When the government robs Peter to pay Paul, it can always count on the support of Paul—*always*." I know this is not a popular statement to make to our elderly citizens, but if they don't start paying their fair share for their health care—and they are costing more for health care than the under 65—then we will continue to see a shift in our health care system toward more government control.

With our health care system in turmoil, Congress is getting constant complaints from all segments of the system:

1. The Medicare recipients complain because they are having to pay too much out-of-pocket money.
2. The working class complains that health insurance premiums cost too much.
3. Hospitals complain about poor reimbursements.
4. Physicians complain that Medicare is unfair, and in my opinion, uses unconstitutional tactics and harassments such as DRGs; mandatory assignment for physicians in some states—and their numbers are growing; a fee freeze since 1984; MAACs; "explanation of benefits" letters, otherwise known as EOBs; and, of course, the hassle for years regarding laboratory reimbursements for physicians' offices.

We are being forced to provide a service for less than it costs us to provide it. Since 1965 we have seen the gap grow wider and wider between our Medicare charges and what Medicare allows. Since the freeze in 1984 we have seen another gap develop between what we are allowed to charge a Medicare patient and what we charge our private patients. Because of this gap, when you turn 65 and receive Medicare, you automatically receive a 20 percent discount on your physician's charge as opposed to his other patients—even if the physician is not a participating physician. That loss in revenue is automatically shifted to the other patients. It is very difficult to understand how the government can pass a law making it illegal for us to charge an over-65 millionaire the same fee that we charge a struggling 20 to 30-year-old patient.

This is not the kind of system we need, and this is not the kind of system our patients deserve. We need to restructure the Medicare law to include only those people who need it. Instead, we are seeing a continued growth of government-covered patients which is why I fear we are rapidly heading toward a socialized system.

Let's take a minute to look at a socialized system we hear is successful—the Canadian system. We recently had three Canadians at an AMA Leadership Conference: Dr. John O'Brien-Bell who is President of the Canadian Medical Association; Dr. Leo-Paul Landry, Secretary General; and Dr. Hugh Scully, an Executive Committee member. In the Canadian system, as with Medicare in this country, the first decade was marked by expansion. Every time there was another election there was another benefit, and Medicare was followed by Denticare and Homecare and Long Term Care and Pharmicare. However, as in most government programs, in 1984 there was an enormous federal budget deficit and things began to change. The physicians found themselves trapped between the public's expectation of continued, unlimited care and the federal government's determination to lighten its financial load. Since the politicians would not take the blame for their extravagant promises, they claimed the physicians and patients were abusing the system. The mood in Canada is rapidly changing and the politicians no longer talk about unlimited comprehensive care. Now they talk about the best health care the province can afford.

As the present health care system grows older in Canada as it has in Great Britain, there are sometimes waits of months—that once were weeks—that will soon grow into years. For example, hip replacement can involve waits of almost one year. There is one lithotripter in the entire province of Ontario, which contains 40 percent of Canada's population and wealth. Now the wealthy patients travel to Boston and New York for treatment. If the present Canadian system is so good, why would wealthy patients travel to America for treatment? Where would Americans travel if we had the same system? At the present time, the Canadian medical system and three provincial medical associations are in courts trying to prevent the government from restricting the entry of new physicians into practice, forcing physicians to retire early and capping physician fees.

PRESIDENT'S PAGES

Our Canadian friends at the AMA Leadership Conference told us that recently the cost crunch and the extension of waiting periods has been disheartening. Dr. Scully felt that the stress of making decisions about allowing open heart surgery patients to wait six months or longer is greater than the stress of performing the surgery. Dr. Landry was concerned about the great anxiety among physicians because the system is controlled by the state and the physicians do not know in what direction the state is going. They feel they are locked into a system over which they have no control. Sound familiar? The government's plan to provide health care for everyone is certainly altruistic, but once they are unable to pay for the promises they make, then they begin implementing unfair rules and regulations that you and I are experiencing through Medicare. Once the government begins taking these questionable tactics, then I think we would all agree with Leo Tolstoy when he said, "Government is an association of men who do violence to the rest of us."

I think the time has come for us to ask ourselves for our children and the future doctors and patients in this country, "Do we want a socialized system in America?" If that is not what we want, then I think it is extremely important for us to take the next step in fulfilling the responsibilities about which I have been talking tonight, and that step is TO BECOME INVOLVED IN ORGANIZED MEDICINE. It's time for us as physicians to sit down with all the parties involved—organized medicine, government, hospitals, insurance companies, and the over 65 and under 65 patients—to discuss this problem. It's time for us to head toward a system with most of us paying what we can afford to pay for insurance premiums, the government taking care of those who are unable to take care of themselves, and some type of risk pool for people who are high-risk because of medical problems. I am, therefore, calling for an ad hoc committee this year which will include all of these groups and which will be asked to come up with a recommendation for Congress. At the end of the year, I will report back to the House of Delegates with that recommendation.

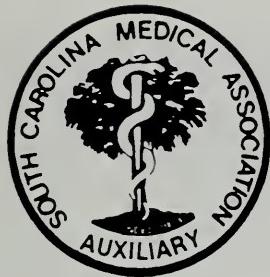
With all of us working together, we *can* fulfill our responsibilities. We *can* continue to provide quality medical care for the sick; we *can* discipline ourselves to insure that quality; we *can* be observers and spokesmen for health care and access to that care. *But*—we must become involved in organized medicine—from the county societies—to the state level—to the AMA. Only in this way can we alter the growing trend towards socialized medicine. Only by becoming involved can we continue to remember with pride the dedication and devotion of those physicians who came before us. Only by becoming involved can we continue—with pride and dignity—to practice medicine with that same kind of dedication and devotion.

Again, let me thank you for allowing me to serve as your President. I pledge to represent you to the best of my ability.



DANIEL W. BRAKE, M.D.
President

SOUTH CAROLINA MEDICAL ASSOCIATION AUXILIARY



WE'VE GOT IT!

Today I stand before all of you overwhelmingly cognizant of the high honor you have bestowed upon me. I thank you for your trust and accept with total commitment. It is truly a thrill of a lifetime with just one, two—three exceptions—my husband, Bill and our two daughters, Erin and Rachael. It is because of Bill, his choice of profession, his commitment to it, his integrity and compassion that I represent him to this organization.

1988 has been a great year for the South Carolina Medical Association Auxiliary. Under the highly organized leadership of Mary James, the medical auxiliary has flourished and grown—*Your dedication as volunteers has made it so.*

When I reflect on the many auxilians I have met working diligently on every level of our organization, I am amazed at the infinite variety of innate talents, gifts and abilities you possess. Intelligence, motivation, creativity, initiative, commitment. I also marvel at the expertise and acquired skills which have evolved from higher education and experience. If our auxiliary is to remain vital and relevant we must be sensitive to new trends, shifting priorities and different ways of thinking. People are joining organizations for different reasons than they once did. We also are competing for volunteers' time. Personal development and quality programming and projects are essential to attract members of every generation.

I am aware of the unique privileges and opportunities physician spouses have because of who we are.

I know the benefits of having access to information and resources . . . of having easy entré to other organizations, institutions, agencies . . . we *have* made our mark on health related issues in our communities.

While we have enjoyed another year of unprecedented successes at the state and county levels, there is no room for complacency among any of us.

If we are to continue "to improve the quality of health care in South Carolina and enhance the image of medicine," we must support the medical profession and portray to the public a reflection of the caring, concerned, compassionate physicians we represent.

As a body of people working together, in unity, our medical group cannot be taken advantage of—as a block of registered voters we are to be listened to—and heeded well. Working together as one strong, unified voice we can and do influence far-reaching decisions and become less vulnerable to outside forces. The old adage "A house divided will surely crumble. . . ." is for us a truism. We have all seen what has happened to medicine when opposing forces split us apart. Most recently, in this past election, we have seen what *we* can do for ourselves when we stand together—when we stand unified.. *Our numbers do count.*

If our members are not informed, we must educate. If our members, their families, and yes, their office staffs are not registered to vote and are not voting, we must strongly encourage them—to enlighten them.

AUXILIARY PAGES

Membership is the backbone of this and any organization. Membership is that integral part, that special component that runs this auxiliary—smoothly. Our increased numbers not only add people to committees; AMA-ERF, health projects, legislation . . . ; but also increase the number of informed medical families.

Our professional family is at a turning point. It is time now for all of us to commit ourselves to our families and to our own personal health. It is time to take very good care of ourselves and each other—to nurture our own medical family. The leadership of this auxiliary is committing itself to you—to place in your hands tools to help you run your county organizations and thoughts to further stimulate interest. I am requesting all of you to commit extra time per week to our auxiliary—a few more minutes of your valuable volunteer time—commit it in some way to the medical auxiliary.

Dickens captures something of the modern medical scenario in the opening line of his classic epic, *A Tale of Two Cities*; “It was the best of times, it was the worst of times.” Turbulence, uncertainties, and changes all are hallmarks of medicine today. High technology and scientific knowledge are pitted against moral and ethical questions never before asked. A suit-happy society no longer accepts with grace or reason some of life’s hard facts—some babies are born deformed, some diseases are incurable and the Creator did not design mortal man to live forever.

If ever our professional family needed our support and encouragement, it is now. The South Carolina Medical Association Auxiliary, like no other group of individuals or organizations, has the potential to fulfill needs. We’ve got it! The ability, the skills, and the insightful knowledge. We’ve got it! I thank you and look forward to an exhilarating year.

MRS. WILLIAM MEEHAN (ROBIN), *President
SCMA Auxiliary*

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President's Page

"IF YOU DON'T LIKE THE SYSTEM . . ."

On April 29, when I was installed as President of the SCMA and Tommy Rowland placed the SCMA medallion around my neck, I felt sincerely humble and proud. But I felt sadness as well, for I was reminded that this medallion which your president wears at all official functions has the SCMA seal on the front and the following inscription on the back: "This presidential medallion is given by John Dessaussure Gilland, Jr., M.D., President, in memory of John Dessaussure Gilland, III, who died May 5, 1976 at the age of 20 years." It was on that very date that Dr. Gilland was installed, in absentia, as President of the South Carolina Medical Association.

Dr. Gilland is a close personal friend of mine and it is he who is responsible for my involvement in the SCMA. As a young physician in Conway, South Carolina, I admitted a patient with Hodgkin's Disease to the Conway Hospital. He stayed three days and I billed the insurance company and was reimbursed for a history and physical and follow-up visits for a total of \$35. Six months later, however, I received a letter from the carrier stating the admission had been denied and I must refund the \$35 or it would be deducted from my next check. I was furious. I knew Dr. Gilland was President-elect of the South Carolina Medical Association so I went to him and complained. I asked him what he (the SCMA) was going to do about this injustice. Dr. Gilland, in his wisdom, said, "Son, if you don't like the system then why don't you do something about it. I'm forming an Insurance Peer Review Committee and I'll put you on the committee where you can work to improve the system."

I learned something from Dr. Gilland that day which many physicians in this state need to learn. First, if we have a problem in medicine then we need someone to go to with that problem. We need a voice to speak for us. That voice in South Carolina is the South Carolina Medical Association and in the nation it is the AMA. Second, we should become involved in trying to improve the health care of the people of this country and the system in which we work. We need to follow Dr. Gilland's example and try to get all physicians to accept their responsibilities as MDs. We should not just take from the system but become involved and give something back to medicine. I became personally involved when Dr. Gilland gave me his wise advice. I served on that committee and later became its Chairman. The committee members learned that some of the reviewers for the insurance companies were denying claims inappropriately and we worked to improve the quality of the reviewers. We developed a working relationship with the carrier and helped develop policies which were beneficial to both the physicians and the carrier. We also found that insurance carriers had a right to complain about a few physicians who were over-utilizing services and we worked to try to improve that situation. As I mentioned in my Inaugural Address, I intend to reactivate that committee and I have asked Charlie Sasser to chair it.



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TRENDS IN CARDIOVASCULAR MORTALITY AND RISK FACTOR LEVELS IN SOUTH CAROLINA: SIGNIFICANCE FOR PREVENTION*

CARLTON A. HORNUNG, Ph.D., M.P.H.
ERNEST P. McCUTCHEON, M.D.

The overall decrease in the death rate from cardiovascular disease (CVD) in the U.S. since 1950 is striking. This trend is generally recognized, but important differences within subsets of the U.S. population have received less recognition. Analysis and review of data for subgroups of the population can help develop more appropriate interventions at national, state and local levels. In this report, we highlight some of the additional information and illustrate its use to support the intervention process at the state level.

DATA SOURCES AND METHODS

The data were provided by the S.C. Department of Health and Environmental Control, from its Office of Vital Records and Public Health Statistics and from the Center for Health Promotion. Projections of future mortality trends were made by the straight line method.

RESULTS

THE DECLINE IN CVD MORTALITY RATES IN THE U.S. AND IN SOUTH CAROLINA

As shown in Figure 1, the decrease in mortality has not been constant or uniform for all types of CVD. Between 1970 and 1982, coronary heart disease as a percent of total deaths in the U.S., declined from 35 to 28 percent, a 20 percent decrease, while stroke mortality in the same period decreased from 11 to 8 percent of total deaths, a 27 percent drop. Even greater variability exists for the changes within the 50 states. For South Carolina, mortality rates for CVD have declined but continue to exceed those of many other states. In 1968, S.C. ranked third in crude CVD death rates for the total population in the 35 to 74 age range. By 1978, S.C. ranked first, having the highest crude mortality rate for CVD of the 50 states despite the improved experiences shown above for coronary and stroke related mortality.

Significant variability also exists for the effects of the age, race, and gender distributions in the population. After adjustment for the age

* From the Department of Preventive Medicine and Community Health, University of South Carolina School of Medicine, Columbia, S.C. 29208.

CARDIOVASCULAR MORTALITY

Percent Decrease in Age-adjusted Death Rates for Cardiovascular and Noncardiovascular Diseases in the United States, 1968 to 1982

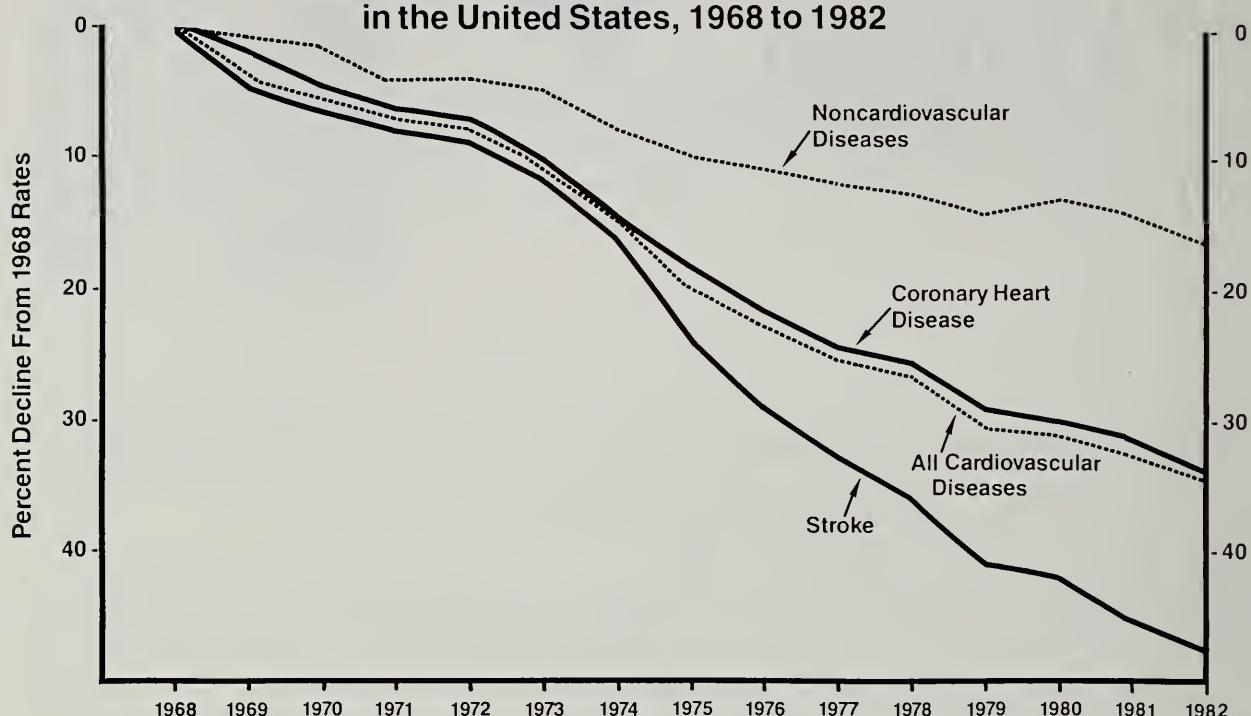


FIGURE 1. Percent Decrease in Age Adjusted Death Rates for Cardiovascular and Noncardiovascular Diseases in the United States, 1968-1982.

distribution within the U.S., rates for race and gender continue to show excessive mortality from CVD in S.C. For the 1970 to 1985 period, adjusted mortality rates are higher in males than in females and higher in nonwhites than whites.

In 1970, the age adjusted death rate among S.C. nonwhite males of 653 per 100,000 was 32 percent higher than the U.S. nonwhite rate (Figure 2B). By 1986 the nonwhite male rate had declined to 428 per 100,000 in S.C., but was still 24 percent higher than the U.S. rate. South Carolina white males in 1970 died at an age-adjusted rate of 522 per 100,000 compared to a U.S. rate of 441 per 100,000. Note that the white male rate is 22 percent lower than the nonwhite rate. By 1986, the S.C. white male rate declined to 310 per 100,000 but continued to be well above the U.S. average of 293 per 100,000.

The relationships for females are similar to those for males (Figures 2C and 2D). The adjusted rate for S.C. nonwhite females was 438 per 100,000 in 1970, declining to 283 per 100,000 in 1986. The rates for the same years among white females were 253 and 158 per

100,000 respectively.

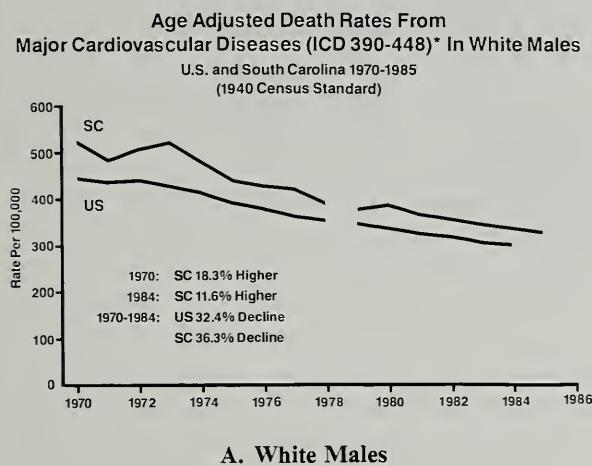
The decline in the S.C. age-adjusted mortality rates exceeds that of the U.S. as a whole for each race-gender group except nonwhite females. Between 1970 and 1984 the rate for nonwhite males declined in S.C. by 36 percent compared to a 31 percent decline nationally. For white males the decline was 36 percent in S.C. and 32 percent across the U.S., while the rate for white females declined 34 percent for S.C. and 33 percent for the nation. For nonwhite females, the 37 percent decline for S.C. was approximately equal to the national figures. More recent data for the years through 1986 show a three percent increase since 1984 in the S.C. nonwhite female mortality rate (i.e., from 275 to 284 per 100,000).

The percent decline in mortality from ischemic heart disease (ICD 410-414) has been larger than the percent decline from other cardiovascular diseases. Table 1 shows the percent decline in mortality from ischemic heart disease compared to all other causes of CVD mortality.

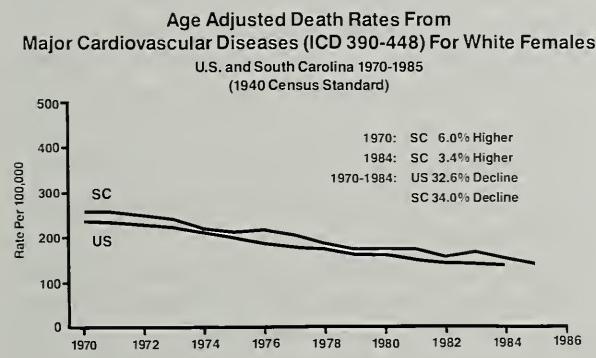
Age-adjusted mortality from ischemic heart disease declined by nearly 58 percent among

CARDIOVASCULAR MORTALITY

FIGURE 2. Age Adjusted Race and Sex Specific Death Rates from Major Cardiovascular Diseases in the United States and South Carolina, 1970-1985.



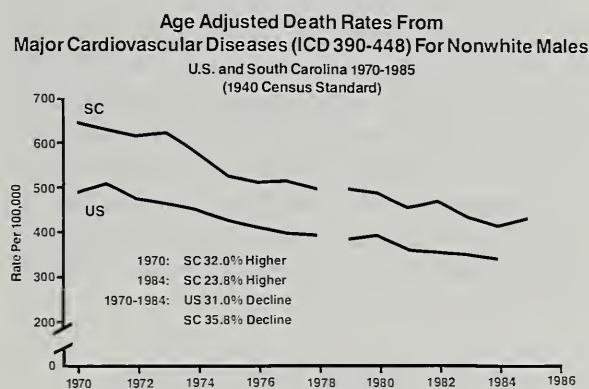
A. White Males



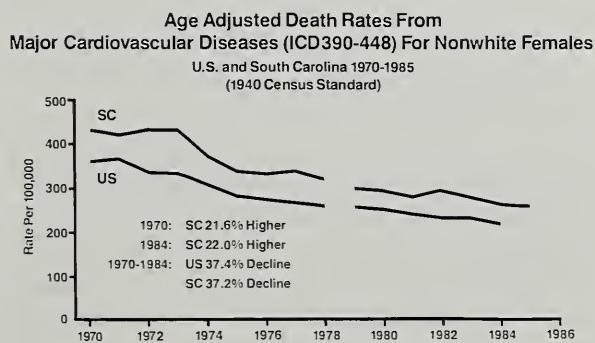
C. White Females

S.C. nonwhite women between 1970 and 1985 compared to a 16 percent decline in mortality from the remaining types of CVD. The declines for the other race-gender groups were about 10 percent less for ischemic heart disease, while mortality from other cardiovascular diseases declined by about 18 percent. In other words, about 80 percent or more of the total decline in CVD mortality rates in South Carolina has been due to the decline in mortality from ischemic heart disease.

Although S.C. has made some progress over the past 15 years and has kept pace with the rest of the nation for all but nonwhite females, S.C. rates continue to be considerably higher than the U.S. average. In fact, these results show that, relative to the rest of the nation, S.C. has made very little real progress in reducing its excess CVD mortality. If the average rates of decline observed nationally and in S.C. for each race-sex group are held constant and proj-



B. Nonwhite Males



D. Nonwhite Females

ected into the future, the number of years to when rates in S.C. will equal the national average can be estimated. For white males in S.C.,

TABLE 1

Percent Decline in Age Adjusted Race and Sex Specific Death Rates from Major Cardiovascular Diseases, Ischemic Heart Disease and Nonischemic Heart Disease in South Carolina, 1970-1985

	<i>Major Cardiovascular ICD 390-448</i>	<i>IHD ICD 410-414</i>	<i>Non IHD ICD 390-409 415-448</i>	<i>% Attributable to IHD</i>
White Male	38.4	46.7	18.3	86.1
White Female	37.9	49.4	18.2	81.8
Nonwhite				
Male	33.6	49.8	16.2	77.0
Nonwhite				
Female	38.1	57.6	16.1	80.2

1. Direct Standardization, 1940 U.S. Census Standard.
2. 8th Revision 1970-78, 9th Revision 1979-85.

the time projected to reach the national rate is about 43 years.

Other race-sex groups may well take even longer to reach parity. The time required for nonwhite males to catch up is approximately 66 years, and for white females it is 34 years. For nonwhite females the future appears to be particularly bleak since the national rate is declining at a faster rate than that observed in S.C. As a result, the data for this group of South Carolinians become relatively worse over future years.

SOURCES OF THE DECLINE IN CVD MORTALITY

The observed declines in CVD death rates can be attributed to the two principal activities of primary and secondary prevention.¹ Primary prevention to decrease the incidence of CVD has its greatest impact through reduction of smoking, better control of hypertension, and dietary changes that result in less consumption of saturated fat and cholesterol. Secondary prevention activities decrease the case fatality rate among patients with CVD. Examples of secondary prevention, directed at individuals with disease, include coronary care units, new drug therapies for management of myocardial ischemia and arrhythmias, and the application of advanced technologies such as percutaneous transluminal coronary angioplasty and coronary artery bypass surgery.

Analyses of the relative contributions of primary and secondary prevention to the decline in U.S. coronary heart disease mortality for the years 1968-1976 indicate that approximately 70 percent of the decline is attributable to primary prevention activities and the remaining 30 percent of the decline results from interventions based upon high technology and secondary prevention.¹ Declines since 1976 have not materially altered this conclusion.

RISK FACTOR LEVELS IN SOUTH CAROLINA

The Behavioral Risk Factor Survey conducted yearly as a joint effort of the Centers for Disease Control and the S.C. Department of Health and Environmental Control, has shown the high prevalence of primary risk factors for CVD in S.C. (Table 2). Obesity levels

TABLE 2
Prevalence of Behavioral Risk Factors for Cardiovascular Disease in South Carolina, 1986

	Over Weight	Sedentary Lifestyle	Current Smoker	Binge Drinking
White Male	26.5	67.4	27.2	12.4
White Female	18.1	63.4	27.1	2.5
Nonwhite Male	21.5	67.9	33.8	10.7
Nonwhite Female	36.5	70.7	17.0	1.9

are high, with over one-third of nonwhite females more than 20 percent above their most desirable weight, and about one in four white males and one in five white females and nonwhite males reporting excessive weight. Excessive weight is associated with a lack of physical activity. For nonwhite females, seven in 10 stated they have a sedentary lifestyle with insufficient exercise and only about one third of the total population exercises three or more times per week.

Cigarette smoking has declined in South Carolina as elsewhere, but 27 percent of whites are current cigarette smokers. However, 34 percent of nonwhite males and 17 percent of nonwhite females continue to smoke. Binge drinking, defined as consuming five or more alcoholic beverages in a 24-hour period, is a risk factor for cardiac arrhythmia and sudden death. Binge drinking is slightly more prevalent in white males than nonwhite males, but about five times more prevalent in males than females.

DISCUSSION & RECOMMENDATIONS

South Carolina, with its excess CVD mortality, can clearly benefit from prevention activities aimed at reducing the risk of CVD. The high prevalence of known, modifiable CVD risk factors in S.C. implies that primary prevention activities have the potential to significantly reduce mortality and morbidity. Such prevention activities appear to be crucial for eliminating S.C.'s excess mortality.

In addition to personal health behavior changes by individuals, group influences are important. Legislative bodies, businesses and industries, and civic organizations can encour-

CARDIOVASCULAR MORTALITY

age and promote behavior change for risk factor reduction. New and expanded health education programs should be implemented in elementary and secondary schools where true primary prevention can have its maximum effect. These programs should include information about the positive benefits of regular exercise and good nutrition and the adverse consequences of poor dietary habits, lack of exercise, smoking and other addictive behavior. At the same time, school and industrial cafeterias should be strongly discouraged from serving only lunches that are high in saturated fat and cholesterol. Popularity of such lunches does not justify the omission of healthy alternatives. Similarly, restaurants ought to be mandated to provide no-smoking sections and be encouraged to offer broader menu choices such as skim milk, baked and broiled meats, spreads and dressings which are low in saturated fat, and other "Heart Healthy" alternatives.

Risk factor screening programs that are carefully administered to insure scientifically accurate evaluations coupled with risk factor counseling and educational materials should be encouraged. Quality screening programs can accomplish two objectives. First, they pro-

vide community education on the risks for cardiovascular disease. Second, they alert individuals to their own personal risks of cardiovascular disease and what they themselves can do to reduce that risk.

Finally, physicians can emphasize prevention activities in their routine care of patients and, when management beyond that available in their practice is needed, refer those patients for diet instruction, weight control, smoking cessation or to learn other special skills in risk factor modification. When physicians give greater emphasis to prevention activities in their role as community leaders and in the care of patients, South Carolina's record of excess deaths from cardiovascular disease can be reduced. □

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ACKNOWLEDGEMENT

The authors gratefully acknowledge the support of the staff of the S. C. Department of Health and Environmental Control, particularly those in the Office of Vital Records and Public Health Statistics, Division of Biostatistics (Linda Jacobs) and the Center for Health Promotion (Dan Lackland), who acquired the data and made it available to the authors.

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MEETING ANNOUNCEMENT

South Carolina Chapter
American Academy of Pediatrics
Annual Scientific Session
"Pediatric Update"

Faculty: Frank A. Oski, M.D., Heinz F. Eichenwald, M.D., William B. Strong, M.D.

Meeting Site: The Grove Park Inn.
Asheville, North Carolina

Meeting Dates: Thursday, August 3–Sunday, August 6, 1989

Credit: AMA Category I and PREP, 6 hours.

For more information contact: Debbie Shealy, SC Chapter AAP, P.O. Box 11188, Columbia, SC 29211, (803) 798-6207.

ADVANCES IN THE TREATMENT OF SUPRAVENTRICULAR TACHYCARDIA*

PAUL C. GILLETTE, M.D.**

FRED A. CRAWFORD, M.D.

DEREK A. FYFE, M.D.

ASHBY B. TAYLOR, M.D.

HENRY B. WILES, M.D.

Supraventricular tachycardia is defined as an abnormally fast heart rate originating above the bifurcation of the bundle of His. It is the most common abnormal rhythm in children and young adults. Supraventricular tachycardia may be due to reentry or automaticity in either normal or abnormal cardiac structures. The mechanism of supraventricular tachycardia dictates the treatment.

The treatment of supraventricular tachycardia has changed in the last five years due to a better understanding of its mechanisms, new drugs, surgical techniques, and new electrical techniques. The treatment of supraventricular tachycardia may be considered as primary, secondary, and tertiary.

PRIMARY TREATMENT OF SVT

Primary treatment of SVT consists of stopping the first episode or a subsequent episode. When considering the primary treatment of SVT, it must be remembered that SVT is rarely fatal. On the other hand, prolonged episodes can lead to congestive heart failure. Therefore, the primary treatment of SVT should be prompt, but not radical.

The mainstays of primary treatment of SVT in children and adults are vagal reflexes. In young children, the first treatment is the "diving reflex." This involves application of cold to the facial region which leads to a reflex which may interrupt reentry circuits involving the

AV node or SA node. Vagal reflexes may temporarily slow an automatic focus or create second degree AV block in response to an automatic focus, atrial flutter, or fibrillation. The standard vagal reflexes, such as carotid sinus pressure, rarely work in the infant, but become more useful in older children and adolescents. Eyeball pressure is effective, but probably shouldn't be used because of the possibility of retinal detachment. Vomiting also causes a vagal reflex and often leads to a cessation of SVT. Drugs, such as neosynephrine, may be used to enhance vagal tone by increasing systemic arterial pressure. Tensilon enhances the effect of acetylcholine.

If vagal maneuvers fail, the next therapy may be either pharmacological or electrical. Since atrioventricular node and sinus node cells are based on a calcium action potential blocking calcium channels is frequently effective if either of the nodes are involved in a reentry circuit. Verapamil is the calcium blocking agent which has the most effect on the AV node. The majority of SVTs are due to reentry circuits involving the AV node. Thus, intravenous verapamil 0.15 mg/kg over three minutes (max dose 5 mg) is very effective in converting SVTs. Infants under one year of age, however, seem to be more sensitive to the negative inotropic and chronotropic effects of verapamil, and our policy is not to use verapamil in these infants.

An alternative to verapamil is the use of transesophageal overdrive pacing. Reentry circuits including atrial flutter are susceptible to conversion, if the circuit can be captured by rapid atrial pacing. A small percentage of patients will convert to atrial fibrillation, but unless they have Wolff-Parkinson-White syn-

* From the Divisions of Pediatric Cardiology (Dr. Gillette, Fyfe, Taylor, and Wiles) and Cardiothoracic Surgery (Dr. Crawford), Medical University of South Carolina, Charleston, S. C.

** Address correspondence to Dr. Gillette at the Division of Pediatric Cardiology, Medical University of South Carolina, 171 Ashley Avenue, Charleston, S. C. 29425-0682.

TABLE I**Primary Conversion Techniques**

- I. Vagal reflexes
 - a) diving reflex
 - b) carotid sinus compression
 - c) neosynephrine or tensilon
- II. Verapamil (if over one year of age)
- III. Esophageal overdrive pacing
- IV. Synchronized DC cardioversion

TABLE II**Doses of Primary Conversion Techniques**

- Verapamil—0.15 mg/kg IV over three minutes
(may repeat once)
- Neosynephrine—0.01 to 0.1 mg/kg IV bolus
(increase dose progressively until systolic BP > 200 mmHg)
- Tensilon—0.1 mg/kg intravenously

drome, the ventricular rate will usually be less than the SVT rate. Many of them will shortly convert to sinus rhythm. The use of overdrive pacing is particularly useful in patients with the bradycardia-tachycardia syndrome since pharmacologic or reflex conversion may result in severe bradycardia. Verapamil is particularly likely to cause bradycardia in patients with sick sinus syndrome or in patients who have received a B-blocker such as propranolol.

Other intravenous drugs, such as digoxin, propranolol or procainamide may convert SVTs. The action of digoxin, however, is slow and it may increase the risk of complications if DC cardioversion becomes necessary or if the patient develops Wolff-Parkinson-White. Propranolol and procainamide may cause significant bradycardia and/or hypotension, particularly if they fail to convert the SVT. Therefore, we recommend the use of synchronized DC cardioversion when reflexes, verapamil, and overdrive fail. Newer defibrillators have accurate synchronization and documentation at the time of discharge. The availability of pads connected directly to the defibrillator have improved the efficiency of cardioversion. The pads are applied to the anterior and posterior chest. Only $\frac{1}{4}$ to $\frac{1}{2}$ joule/kg is required to convert most SVTs. Ketamine is a safe and effective form of sedation for cardioversion. It increases blood pressure and maintains respiratory effort. It may, however, increase the tachycardia rate before cardioversion.

SECONDARY TREATMENT OF SVT

The secondary treatment of SVT aims to prevent recurrences of the SVT. Some patients

do not require chronic treatment if their SVTs are relatively slow or infrequent. All infants and young children should be treated since they may slip into congestive heart failure before the tachycardia is noticed.

Digoxin is the most frequently used drug for prevention of SVT. It slows conduction in the AV node and probably prevents some premature beats that initiate SVT. In addition to attempting to prevent SVT, digoxin slows the rate of SVT, if it does occur and supports the myocardium. Digoxin is contraindicated in patients with Wolff-Parkinson-White syndrome because it may increase conduction velocity in some accessory connections. Thus, it may increase the tachycardia rate or the ventricular response to atrial fibrillation. Oral beta blockers may prevent episodes of SVT. Newer beta-blockers may be used once a day, thus decreasing the burden of more frequent dosing. Oral verapamil is another safe and frequently effective drug for the prevention of SVT. Verapamil has a low incidence of side effects. Type I drugs, such as quinidine, procainamide or dysopyramide may prevent SVT, but carry the risk of serious side effects or death. These drugs also have unpleasant gastrointestinal and urinary tract side effects. Type IC drugs such as flecainide are very effective in preventing SVT with a low incidence of side effects.

Young children frequently outgrow their SVT. Thus, if there are no episodes for one or two years during treatment, a trial without drugs is warranted. Even patients with WPW syndrome may experience long tachycardia free periods. This is especially true between the ages of one and 10 years.

TABLE III
Pharmacologic Prevention of SVT

Digoxin—10 mcg/kg/day up to 0.5 mg/day lower doses for prematures or neonates
Propranolol—2-8 mg/kg/day up to 80 mg q 6h
Atenolol—1 mg/kg/day in one dose
Verapamil—3-5 mg/kg/day in three doses

TERTIARY TREATMENT OF SVT

Although significant advances have been made in the primary and secondary treatment of SVT, the most important advances have been made in the tertiary treatment of SVT. Tertiary treatment begins when two drugs have been tried at adequate doses or serum concentrations and the patient is either still having important episodes of SVT or having side effects from the drugs.

Tertiary treatment of SVT is dependent on a knowledge of the exact mechanism. Although the exact mechanism can be estimated based on the surface ECG, it requires detailed electrophysiological study for exact delineation. Greater than 90% of SVTs are due to reentry. Nearly 50% involve reentry using an accessory connection (Kent bundle). Many are due to reentry within the AV node. Only a small percentage are due to an automatic focus within the atrium or bundle of His.

AUTOMATIC FOCUS TACHYCARDIA

Automatic focus tachycardias may originate in the atrium or bundle of His. They are chronic and usually persistent tachycardias which are unresponsive to all usual treatments including overdrive pacing and DC cardioversion.

Junctional (His bundle) automatic tachycardia is very rare. It is a congenital tachycardia which results in severe congestive heart failure and death in 50% of patients. We have recently proposed destruction of the bundle of His and implantation of a pacemaker as treatment for this form of SVT.

Atrial automatic tachycardia is less life threatening, but has been shown to lead to a congestive cardiomyopathy after years of tachycardia. Since this tachycardia is resistant to

all standard forms of medical treatment, we have used catheter electrical ablation, surgical cryoablation, or removal of the focus. The cardiomyopathy has resolved in each case once the tachycardia was stopped.

REENTRY TACHYCARDIAS

Reentry tachycardias involving reentry using a Kent bundle or rapid ventricular responses to atrial flutter or fibrillation can be successfully treated by surgical division of cryoablation of the Kent bundle. This procedure involves use of the heart-lung machine, but the complication rate is exceedingly low, and the success rate is greater than 90%. Reproducible success in catheter ablation of Kent bundles has not yet been reported. We and others have used surgical Kent bundle ablation in patients with WPW syndrome who have symptomatic tachycardias requiring more than one drug for control or who have significant side effects from drugs. Surgical treatment is particularly attractive in young patients whose life is frequently severely altered by episodes of SVT and in patients in whom taking the drugs cause psychological problems.

One third of the patients with a Kent bundle do not have WPW syndrome on ECG because the Kent bundle cannot conduct antegrade. These patients are detected by detailed electrophysiological studies of their supraventricular tachycardia. Surgery is equally effective in these patients.

It is currently possible to reproducibly alter AV node physiology by surgery thus preventing SVT without the risk of complete AV block. In the rare patient whose symptoms warrant the production of AV block, it can be performed by catheter ablation. Patients with AV node reentry or atrial flutter may also be treated by implantation of an automatic overdrive pacemaker which stops the tachycardia after two to three seconds. These pacemakers are not appropriate for patients with WPW syndrome because of the possibility of induction of atrial fibrillation. Newer automatic antitachycardia pacemakers can successfully differentiate sinus tachycardia from paroxysmal tachycardia using the abruptness or the onset of tachycardia. They are particularly useful in children with bradycardia as well as tachycardia.

TABLE V
Tertiary Treatment of SVT

- Drugs
- Pacemakers
- Catheter Ablation
- Surgical Ablation

The selection of a tertiary treatment of SVT must take into account not only the mechanism of the tachycardia, success and complication rates of the treatment, but also the emotional needs of patients to be as nearly normal as possible.

SUMMARY

Patients with supraventricular tachycardia should be able to lead a perfectly normal life without significant treatment related side effects. Many of these patients have normal

hearts and no other significant medical problems. Using the techniques described above, no patient should have significant symptoms from SVT. □

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SCMA NEWSLETTER

JUNE 1989

HIGHLIGHTS OF MAY 25 BOARD OF TRUSTEES MEETING

The Board heard a report on a special committee being formed by Senator Hugh Leatherman to study the cost of health care at the state level, particularly with regard to insurance for small business employers. Because Medicare is a major problem in the cost of health care, SCMA President Dan Brake will communicate with Senator Leatherman to urge Medicare representation on the committee.

In an effort to assist Blue Cross and Blue Shield in convincing HCFA to implement a policy of equal reimbursement for equal services in the Medicare program, the Board reaffirmed a 1984 SCMA policy statement "opposing the UCR reimbursement system in its current form because it is discriminatory against patients and physicians alike, and the SCMA supports equal reimbursement by third party payors for equal services, with no mandatory assignment, the freedom to balance bill, and an upgrade of reimbursement schedules every six months." See the "President's Page" in this issue of The Journal for additional information.

President-elect John Simmons reported on the SCMA successes in the current legislative session, noting that none of the bills opposed by the SCMA were passed, and all bills supported by the SCMA either were enacted or narrowly missed being enacted.

The Board commended Swift C. Black, MD, for his many years of service as Sergeant-At-Arms at SCMA Annual Meetings.

Approved by the Board was a resolution to submit to the AMA House of Delegates requesting "immediate action by HCFA and, if necessary, by Congress to withdraw the requirement for inclusion of the referring physician's ID number on Medicare claims of radiologists, pathologists, independent laboratories and other physicians when a patient was referred by another physician for consultation or treatment."

In addition, an SCMA resolution will be submitted to the AMA House of Delegates requesting that "the AMA examine the subsequent acts of Congress and regulations promulgated by the governmental agencies under these laws which impose onerous

burdens on physicians in the care of Medicare patients, to determine whether such acts or regulations are in violation of Section 1801 of PL 89-97, and ... that the AMA take whatever legal action that is feasible to prevent implementation and/or enforcement of laws or regulations which are in conflict with Section 1801 of PL 89-97."

The Board voted to ask the Editorial Board of The Journal to begin compiling historical data on SCMA past presidents for use by medical historians in the future.

With regret, the Board accepted the resignation of D. Strother Pope, MD, as director of the Doctor of the Day program in the state legislature, and commended Dr. Pope on his excellent work and years of service to this effort. A Doctor of the Day Committee of the SCMA will be appointed to continue Dr. Pope's work.

The Board agreed that the SCMA Hospital Medical Staff Section would meet at breakfast during the ninth annual Conference for Trustees, Administrators and Physicians to be held September 21-23, 1989 at the Mariner's Inn, Hilton Head Island, SC.

SCMA Board members agreed to write the SC Congressional Delegation opposing (1) expenditure targets, (2) the ban on physician referrals (HR 939) and (3) disproportionate cuts in Medicare Part B.

MEDICARE UPDATE

Consultation Services

As mentioned in last month's Newsletter, all claims for consultation services (CPT-4 codes 90600 through 90654) rendered on or after June 1, 1989 must include the referring physician's name, identification number and two-letter abbreviation for the state where services were rendered. This information should be put in block #19 of the HCFA-1500 claim form. Physicians who do not file claims for their patients must include this information on the itemized bill given to the patient for filing purposes. For more detailed information regarding referring and ordering physician data, refer to recent Medicare Advisories from Blue Cross and Blue Shield.

Medicare Fraud and Abuse Act

Physician joint ventures when involving the care and treatment of the Medicare patient, are coming under closer scrutiny from the federal government under the Medicare Fraud & Abuse Act (42 U.S.C. 1320a-7(b) (b), 1128B(b) of the Social Security Act). The Act prohibits any person from receiving any remuneration, overtly or covertly, in exchange for a referral of health care services covered under Medicare and Medicaid. Criminal penalties

of imprisonment up to five years and fines up to \$25,000 are possible for willful offenses.

Proposed regulations published in March in the Federal Register outlined nine "safe harbors," different tests which can be applied to a business situation in the health care services area. If the criteria of a "safe harbor" are met by a health care business venture, the arrangement will be deemed acceptable to the federal government. The nine safe harbors involve the areas of (1) investment interest; (2) space and equipment rental; (3) personal service of management controls; (4) sale of a physician practice; (5) referral services; (6) warranties; (7) discounts; (8) employees; and (9) group purchasing organizations.

For a copy of the proposed regulations which include the criteria of each of the nine "safe harbors," contact Barbara Whittaker at the SCMA.

MEDICAID UPDATE

Sterilization Claims: Effective January 1, 1989, only the Sterilization Consent Form (HHSFC 1723) is required to process a sterilization claim.

Breast Reconstructive Surgery: Effective with dates of service on March 1, 1989, the Medicaid program will consider the expenditure of funds for reconstructive breast surgery following a mastectomy due to carcinoma of the breast, but prior authorization is required and approval will be based on specific criteria for medical necessity.

Coding Updates for ER and Special Services: Medicaid is now following Medicare's updated policy for use of the unusual or special services codes listed in the "Special Services and Reports" section of the CPT-4 coding manual. For these coding updates, see the Medicaid Bulletin dated April 12, 1989.

Expanded Medicaid Services: With the passage of the Medicare Catastrophic Coverage Act in 1988, states are required to cover a new group of individuals for Medicare premiums and cost sharing. This group of individuals is known as Qualified Medicare Beneficiaries (QMB). QMBs must be entitled to part A hospital insurance, have income below the federal poverty level and have resources below twice the SSI limit. Effective February 1, 1989, Medicaid began covering the Medicare premiums, the coinsurance and deductibles for all Medicare covered services and the regular Medicaid services.

Effective April 1, 1989, Medicaid coverage was expanded to cover children up to age six (6) in families with income under 100 percent of the federal poverty level. Also, the income eligibility level for pregnant women and infants expanded from 100 percent to 125 percent of the federal poverty level. This percentage may increase to 150 percent later this calendar year.

PRO UPDATE

CMR Review Procedures and Criteria Updated

Carolina Medical Review (CMR) has updated its Procedure and Review Criteria Manuals. These manuals assist CMR's non-physician reviewers in screening medical records. Physician consultants do not use these manuals in making determinations; instead, they use their medical judgment and expertise.

Hospitals received copies of updated criteria in PRO Bulletin 89-5. Major changes of interest to physicians include:

- * the addition of criteria for some procedures, such as appendectomy, laparoscopy and circumcision;
- * changes in preprocedure review criteria for transurethral resection of prostate, lens procedures and inguinal hernia; and
- * the addition of a section on ambulatory care and documentation standards.

Updated copies can be obtained by calling CMR's Public Relations Coordinator, Melinda McDonald at 1-800-922-3089 or 803-731-8225.

PRO Update on Short Stay Policy

Carolina Medical Review (CMR) requests that if a physician has reason to expect a patient will remain in the hospital 24 hours or less, then the patient should be admitted for observation. Hospital billing departments should be notified, preferably by admission orders, of the intent of the admission for observation to ensure the patient is billed under Part B of the Medicare program. If the hospital is not informed of the reason for observation and bills the patient under Part A, then this case is subject to review by CMR. These admissions are often denied because the case fits the observation category (Part B), but was billed as a full admission (Part A and DRG). Therefore, it is important that physicians specify the reasons for admission with the hospital within 24 hours of admitting a patient.

CMR would also like to remind physicians of the following:

1. The 24-hour observation clock does not stop at 24 hours. Observation status has no time limit.
2. CMR does not review cases which are properly billed by the hospital as observation services (Part B). The PRO only reviews hospital admissions billed under Part A.
3. CMR is not focusing its review on short stays.

4. Observation status can be upgraded to full admissions at any time the physician deems the stay will be extended beyond 24 hours and acute care services are necessary.

Physician Documentation: The "Importance of Documentation in PRO Review" is a brief summary of necessary physician documentation. Copies are available at your hospital, from the PRO, or by contacting Barbara Whittaker at the SCMA.

STATE BOARD OF MEDICAL EXAMINERS: REREGISTRATION DEADLINE

July 1, 1989 is the deadline for physician reregistration with the State Board of Medical Examiners. Physicians whose address has changed since they last reregistered should notify the Board in writing immediately.

ANTITRUST SCRUTINY OF PHYSICIANS

The US Justice Department is scrutinizing more and more specialists in large cities and physicians in small towns because, according to the chief of the antitrust division, when they engage in anti-competitive activity they tend to strangle health care delivery in their respective markets.

Edward B. Hirshfield, AMA's Associate General Council, advises, however, that in forming a joint venture, if physicians are proceeding in good faith, they will not be "put in jail." He cites a few examples of activity which do or do not constitute violations of antitrust law:

* If 10 independent physicians in a community of 100 physicians agree to charge \$35 for an office visit, that agreement constitutes a price-fixing arrangement and is a criminal violation of antitrust law.

* If 10 physicians in a group practice agree to charge \$35 for an office visit, this is not considered restraint of trade because they are a single business entity and not competitors.

* It would be a criminal violation if two clinic administrators in a city get together and agree that their physicians will charge \$35 for an office.

* If a medical society should advise its members they should boycott an HMO, such activity would be considered a criminal violation.

* If the same medical society should review an HMO contract and explain its provisions to its members without making any recommendation, this activity would be considered legal.

AMA PHYSICIAN NEGOTIATION ADVISORY OFFICE

The AMA has established a Physician Negotiation Advisory Office

to assist physicians in their relationships with third-party payors. The Office will supply information to educate physicians regarding the antitrust laws and will provide practical advice for appropriate responses in most situations facing physicians today. The Office will also refer physicians to health law attorneys who can provide representation when necessary. For more information contact Mr. Mike Ile, AMA Office of the General Counsel, at 312-645-5601.

MAXICARE BANKRUPTCY

The Maxicare bankruptcy has caused confusion among many physicians who are concerned about the obligations to Maxicare pursuant to orders issued by the bankruptcy court, and whether they will be paid for treating Maxicare patients. For a copy of a memorandum setting forth commonly asked questions and answers to them, call Kim Fox at SCMA headquarters.

RADIO PUBLIC SERVICE ANNOUNCEMENTS ON HEALTH HAZARDS OF TANNING

Three public service announcements are currently being distributed to radio stations throughout the state warning listeners of the health hazards relating to the sun and tanning beds. The spots are sponsored by the SC Dermatological Association and the SCMA.

AMA LEGISLATIVE ACTIVITIES

During the month of April 1989, the AMA submitted comments to the Legislative and Executive Branches of the federal government on the following subjects:

- * Scheduling of anabolic steroids;
- * Quality review and assurance in Medicare;
- * Medicare and the FY 1990 Federal Budget;
- * Funding for WHO and PAHO;
- * Graduate medical education;
- * Medicare - Physician payment reform;
- * Automobile safety belts and motorcycle helmets;
- * FDA funding;
- * Medicare payment for teaching physicians and for inpatient pathology services;
- * Toy guns;
- * Modifying the PRO program;

- * Medicare fee schedule for radiologist services;
- * Additional PRO outpatient surgery generic quality screens; and
- * Long term care.

IRS EMPLOYEE BENEFITS PROVISION (Section 89)

Implementation of Section 89 of the Internal Revenue Service Code, a provision of the 1986 tax law that forces businesses to provide equal benefit packages to high and low-compensated employees, will be effective October 1, 1989. The House Ways and Means Committee is considering proposed changes which could simplify Section 89 rules determining discriminatory practices. Section 89 cannot be ignored without endangering the tax status of all employee benefit plans (other than pension). Contact your accountant or attorney today.

FOSTER PARENTS NEEDED FOR CHILDREN WITH MEDICAL PROBLEMS

Foster parents are desperately needed to provide shelter and care for children who have medical problems and who are on heart monitors or have been diagnosed as having AIDS. Interested families are urged to contact Bill Calliham, Richland County Department of Social Services at 256-0770. Special training will be provided for those who apply if needed.

PUBLICATIONS AVAILABLE

The SCMA has received a new issue packet on cholesterol, developed by the Division of Communications of the AMA. Included is background information and a typical food editor release with recipes, a speech entitled "Cholesterol: (Some) Bad News and (Mostly) Good News", and handouts for use during group presentations. If you would like a copy of these materials for possible use in your community, contact Melanie Kohn or Kim Fox at SCMA headquarters.

The AIDS Guidelines for Health and Public Safety Workers recently published by the Department of Health and Human Services, is now available to physicians for a nominal charge. This document outlines recommended procedures to be followed by health care, law enforcement and public safety workers who may be exposed to both HIV and HBV infection. To obtain a copy, at a cost of approximately \$10, call HHS in Baltimore at 301-966-7843.

The Surgeon General, the American Cancer Society and the National Cancer Institute are asking physicians across the nation to urge their patients who smoke to quit. A booklet, "Quit for Good: A Practitioner's Stop Smoking Guide," is available. Also available is a promotion kit including pamphlets for the office, a poster, 50 patient-doctor contracts to quit smoking, smoker ID stickers

for patient files, no smoking signs, etc. To order the booklet and/or kit, write: NCI, Building 31, Room 10A24, Bethesda, MD 20892 or call 1-800-4-CANCER. You will need to let them know you are a physician or health professional to obtain the information.

UPCOMING CONFERENCES

"Eliminating Risks in Emergency Rooms," sponsored by the SCMA, SCHA, SC Society for Risk Management/Quality Assurance Professionals, Midlands AHEC/Nursing Division and the Greenville Hospital Systems, will be held on June 28, 1989 at the Embassy Suites Hotel in Columbia. A registration fee of \$20 covers the cost of lunch, coffee breaks and other program expenses. For additional information, contact Doris Clevenger, SCHA, PO Box 6009, West Columbia, SC 29171-6009.

The Third International Conference on AIDS Education, sponsored by the International Society for AIDS Education, will be held September 10-13, 1989 at the Stouffer Nashville Hotel and Nashville Convention Center. For registration information, contact the conference secretariat at Vanderbilt University, Nashville, Tennessee 37232 or call 615-322-2437 or 615-322-2252.

The Third National Medical Staff Conference is scheduled for October 19-21, 1989 in Washington, DC, for medical staff officers, medical directors, CEOs and Board members. Topics to be covered include antitrust, peer review, RBRVS, quality assurance, ethics and indigent care. For more details, call 312-645-4761.

CAPSULES

Congratulations to James Lucas Walker, MD, of Clinton, SC, chosen as the Physician of the Year for 1989 by the SC Academy of Family Physicians.

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DESCENDING THORACIC AORTA TO FEMORAL ARTERY BYPASS*

R. RANDOLPH BRADHAM, M.D.**

P. REID LOCKLAIR, JR., M.D.

ARTHUR GRIMBALL, M.D.

Bypassing obstructions in the infrarenal aorta and iliac arteries is commonplace and patency rates are highly satisfactory. However, there is a small segment of this patient population for which some procedure alternative to the abdominal aorta femoral bypass is indicated. Popular choices are the femoral to femoral bypass for unilateral occlusion and the axillofemoral bypass for unilateral or bilateral occlusions.

In 1961, Blaisdell¹ introduced another option with the descending thoracic aorta to femoral artery bypass graft through an extraperitoneal route. His first case was done to replace an infected abdominal aortic bifurcation prosthesis. Subsequently, this procedure has been adopted for expanded indications including infected abdominal grafts, obstructed abdominal prostheses, failed axillofemoral grafts, hazardous or virtually impossible abdominal operations, gross obesity, and for high infrarenal aortic obstructions.

We have had two recent patients for whom this operation was invaluable for revascularization of the lower extremities.

CASE REPORTS

Patient 1: L. V. was a 60-year-old white female who had claudication for two years in both lower extremities. During the six months before admission, her activity was severely limited. Attempts at angiography in another city failed because of the extent of her disease. In our hospital these were finally accomplished via an axillary approach. There was total occlusion of the abdominal aorta at its bifurcation. The occlusion extended into the iliac arteries.

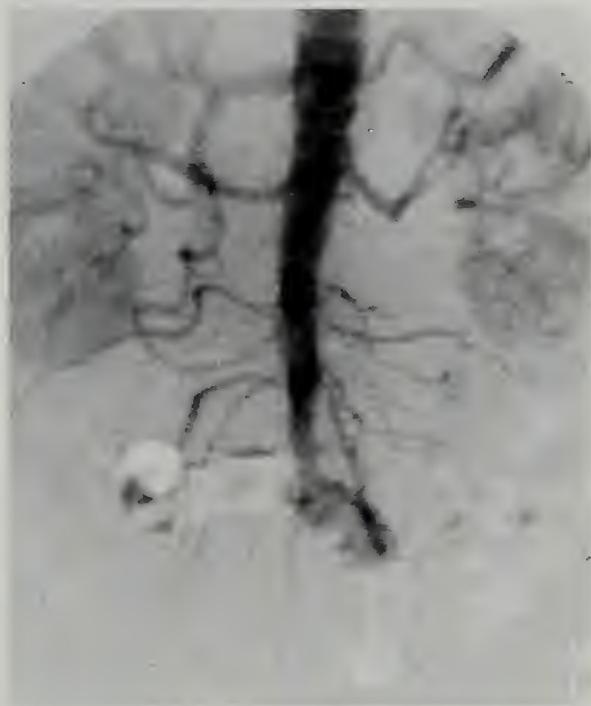


FIGURE 1

There was satisfactory run-off bilaterally. (Fig. 1) An infrarenal aortobifemoral bypass was attempted but aborted as the aorta was so calcified that attempts to occlude it and sew a graft to the tenuous adventitia was hazardous. She was discharged to return for an axillofemoral or thoracic aortofemoral graft.

One month later she was admitted to the hospital for severe left foot pain. There was anesthesia of the foot and limited motor function. The day of admission, a descending thoracic aortobifemoral graft was done. Postoperatively, the pulses in both feet were palpable. She recovered quickly and has remained free of claudication.

Patient 2: J. L. was a 57-year-old white female known to be hypertensive and a heavy smoker. For the two years prior to admission, she had progressive bilateral lower extremity

* From the Departments of Surgery, Roper Hospital and Saint Francis Xavier Hospital, Charleston, S. C.

** Address correspondence to Dr. Bradham at 315 Calhoun Street, Suite 405, Charleston, S. C. 29401.

claudication. Her femoral pulses were very weak. Arteriography revealed extensive atherosclerosis involving the aorta and iliac arteries. There was almost total occlusion of the left common iliac artery at its origin with a rich collateral flow supplying most of the blood flow to the left leg. (Fig. 2)



FIGURE 2

Because of the severe and extensive disease, decision was made to do a lower thoracic aorta to bifemoral bypass graft. The lower thoracic aorta proved to be essentially free of disease. The femoral vessels were small with posterior plaques but with adequate lumens. The patient had bilateral pedal pulses postoperatively and an uneventful course. She has continued to be free of claudication and has unlimited walking tolerance.

TECHNIQUE

The anesthesiologist intubates the patient with a double lumen endotracheal tube so the left lung can be collapsed for better exposure. The patient is positioned with the left chest elevated to 45 degrees and with the hips left supine. (Fig. 3) The left chest, abdomen, and

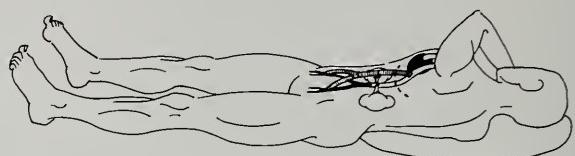


FIGURE 3

groins are draped as a sterile field. The femoral arteries are exposed through small groin incisions, and the femoral arteries evaluated prior to thoracotomy. An anterolateral seventh intercostal space thoracotomy is done to expose the distal descending thoracic aorta. The inferior pulmonary ligament is transected and the lung packed away superiorly. The lower descending thoracic aorta is exposed by incising the overlying parietal pleura. A small segment of the aorta is partially mobilized with care to protect the intercostal arteries. A woven dacron bifurcated graft, usually a $16 \times 8 \times 8$, is preclotted and the patient is given heparin. A partial occlusion clamp is placed on the aorta and an aortotomy done. The aortic end of the graft is then anastomosed to the aorta end to side with a running 4-0 prolene suture at near right angle. It is preferable to route the graft to the groins through a preperitoneal approach. This sometimes necessitates a small incision in the left flank to facilitate passage of the graft limbs to this position and, then, from this position to the groins. When there is a lot of scarring in this plane, a subcutaneous route can be used. End to side anastomoses are made at the appropriate angle between the distal graft limbs and the femoral arteries with a 5-0 prolene continuous suture. These anastomoses are usually positioned at the take-off of the profunda femoris artery. A single chest tube is inserted.

DISCUSSION

The thoracic aorta to femoral artery bypass graft is no panacea for revascularization of the

lower extremities. It is not the procedure to be done in a debilitated patient or for someone with severe pulmonary disease. For others, with indications as listed in the introduction of this paper, the procedure provides a patient with an additional chance to gain satisfactory lower extremity revascularization. In properly selected patients, the procedure is associated with low morbidity and mortality. McCarthy and associates² reported a series of 13 patients with no operative mortality. Seven of their patients had infected abdominal aortic grafts removed and initially replaced with axillofemoral prostheses. Five others had failure of at least two aortofemoral grafts and one was done in a patient after multiple complex abdominal operations. All of these grafts, except one, were patent at 72 months.

Schultz, Sterpetti, and Feldhaus³ reviewed their experience with reoperation for recurrent obstruction occurring after aortoiliac or aortofemoral reconstruction. A group of 15 patients (25 limbs) underwent retroperitoneal descending thoracic aorta-femoral artery bypass and another group of seven patients (11 limbs) had axillofemoral bypass grafts. The five-year actuarial patency rate was 80.2% for the former and 32.9% for the latter.

Lakner and Lukacs⁴ found no evidence of "steal effect" in the splanchnic circulation and their review of the literature failed to disclose any such cases.

The descending thoracic aorta represents an excellent source of inflow and is seldomly involved with severe atheromata. Froysaker and associates⁵ measured a flow of 1050 ml/min in a patient with descending thoracic aortobifemoral graft, and flows of 2000 and 840 ml/min in two patients with thoracic aortoiliac grafts. Although distal resistance, a major factor in the flow rate of a graft, varies in patients, the above recorded flow rates are much better than the *mean* flow rates in axillobifemoral and axillofemoral grafts (unilateral) of 621 and

273 ml/min respectively, measured by LoGerrofo and associates.⁶

It is not unusual to find atherosomatous disease in the innominate, subclavian, or proximal axillary arteries in those patients who have severe abdominal aortic disease, and sometimes this involvement is unrecognized. The axillofemoral graft can be doomed to failure should compromise of these arteries exist. Another advantage of the thoracic aortic femoral graft over the axillofemoral graft is that the length of the conduit is much shorter and conventional bifurcated grafts can be used. The exposure to bending and external compression is less.

In our practice we continue to use the more conventional bypass procedures such as infrarenal aortic grafts, thrombectomy via the femoral approach for clotted grafts, and axillofemoral and femoral to femoral grafts. However, we will be much more inclined to utilize the thoracic aorta to femoral artery graft when it is anticipated that it will be a less hazardous and more effective procedure.

SUMMARY

Two patients have been presented for whom the selection of a thoracic aorta to bifemoral artery bypass graft was necessary because the abdominal aorta was too compromised to be used as an outflow conduit. Both patients gained a most satisfactory result.

The indications and contraindications for this procedure and its technique are cited. It is stressed that this operation should be selected for those patients for whom the more conventional bypass routes are not feasible or are hazardous. This merely gives the surgeon another option where circumstances are complicated.

The surgical approach is usually straightforward and is associated with low morbidity and mortality. Patency rates and flow rates compare equally with the abdominal aortic to femoral bypass grafts. □

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MYASTHENIA GRAVIS PRESENTING AS RESPIRATORY FAILURE: CONFUSION WITH A PSYCHIATRIC ILLNESS*

C. BRYAN JORDAN, II, M.D.
HAROLD G. MORSE, M.D.**
LARRY S. ATKINSON, M.D.

Respiratory failure is a well known complication of myasthenia gravis. Onset may be sudden or insidious. In two recent reviews^{1, 2} myasthenic patients requiring mechanical ventilation for respiratory failure ranged from 7.6-20% of patients with known disease. Respiratory insufficiency is often difficult to detect early in the disease. In none of the reviewed cases was respiratory failure the presenting symptom.

We shall discuss a fatal case of respiratory failure in an undiagnosed myasthenic in whom confusion with a psychiatric disorder hampered appropriate management.

CASE REPORT

A previously healthy 16-year-old black female presented to the emergency room of Anderson Memorial Hospital with a chief complaint of abdominal pain. The emergency physician found the patient lying naked on the floor of the examining room. She gave no history of weakness and exhibited no weakness when assisted to the examining table. Physical examination was recorded as normal except for a mild tachypnea (24 per min.), flattened affect, and withdrawn, inappropriate behavior. There was no evident lid lag, difficulty with speech or secretions, or muscle weakness. Past medical history obtained from family at this time revealed only a long history of school adjustment problems and street drug abuse. She was noted to be a regular patient at the local mental health clinic. Psychiatric consultation was obtained and admission was made to the psychiatric ward for observation.

Twelve hours after admission, the patient was noted to have shallow rapid respirations and appeared dyspneic to members of the nursing staff. Vital signs were recorded, pulse 76 beats/min., blood pressure 140/70 mm Hg, respiratory rate 28/min. Medical consultation was requested. Physical exam was again normal excepting a respiratory rate of 28/min. and inappropriate, withdrawn behavior. There were no findings of muscle weakness. Portable chest roentgenogram was normal. Serum electrolytes, glucose and urea nitrogen were normal. Complete blood count revealed only a mild lymphopenia.

Fifteen hours after admission, arterial blood gases showed a mild respiratory acidosis (pH 7.32 PCO₂ 56, PO₂ 77). Urine toxicology screen was requested, and the patient was moved to a room where more frequent observation and hourly vital signs could be obtained. Eighteen hours after admission, the patient was noted to be ambulatory on the unit without apparent difficulty, watching television, and conversing on the phone. Shortly after returning to her room, she was found unresponsive on the floor of her room without pulse or respiration. Attempted cardiopulmonary resuscitation was unsuccessful.

Postmortem examination demonstrated diffuse thymic hyperplasia. Lymphoid nodules with active germinal centers were scattered throughout the thymus and found to impinge upon the cortex in many areas (Fig. 1). There was no evidence of thymoma. Postmortem toxicologic analysis of urine and vitreous humor by thin layer chromatography was negative. Acetylcholine receptor binding antibodies obtained at postmortem and reported at Mayo Medical Laboratories revealed a value of 39.5 nanomoles per liter (normal less than

* From the Family Practice Residency Program, Anderson Memorial Hospital.

** Address correspondence to Dr. Morse at 819 N. Fant Street, Anderson, S.C. 29621.

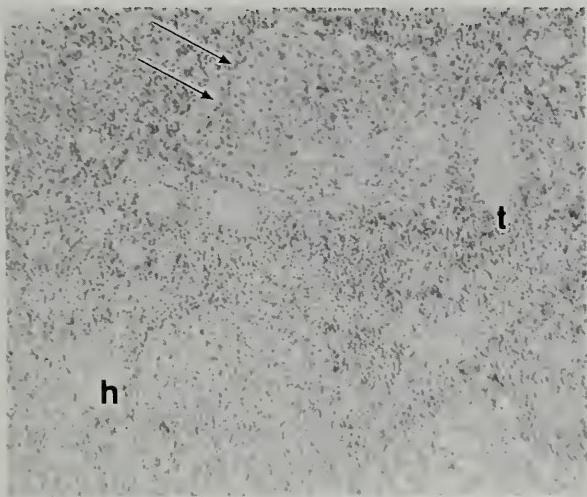


FIGURE 1.

0.03 nanomoles/l). Postmortem diagnosis was myasthenia gravis leading to respiratory arrest.

DISCUSSION

Myasthenia gravis is a systemic neuromuscular disorder of immunologic origin. It was first described in 1672 and is characterized by weakness and undue fatigability. The most frequently affected muscles include the oculomotor, facial, laryngeal, pharyngeal, proximal limb and respiratory muscles. Females are affected twice as often as males. Onset of the disease is usually insidious but may be acute. Physical findings on examination are often subtle. Dr. Samuel Wilkes at the Guy's Hospital in London describes this quite well in 1877 in what is widely regarded as one of the earliest case reports of the disease. "A stout girl, looking well, came to the hospital on account of general weakness; she could scarcely walk or move about. She spoke slowly and had slight strabismus. The house physician was inclined to regard the case as one of hysteria. Every movement of her limbs and speech was performed so slowly and deliberately that the case seemed rather one of lethargy from want of will than actual paralysis. It was shortly afterwards seen that her respirations were becoming affected, the difficulty of which rapidly increased and in a few hours, she died."³

Respiratory failure in myasthenics may be precipitated by surgery⁴ or infection.¹ It is also

seen in cholinergic crisis due to retention of excess secretion from an ineffective cough, or in myasthenic crisis due to weakened respiratory muscles.^{1, 5} Medications including aminoglycides, D-penicillamin, Quinidine, procainamide, and phenytoin may precipitate a myasthenic crisis or induce a myasthenic syndrome.⁶ Physical findings may be subtle and the first noted change may be simply a fall in vital capacity.² Decreased ventilatory effort results in mild hypoxemia, reflex tachypnea and respiratory alkalosis. Tachypnea then hastens muscle fatigue which can lead rapidly to respiratory arrest. Prior to introduction of anticholinesterase drugs in 1934, this most feared complication of myasthenia resulted in an 8% mortality rate during the first year of disease.² In the 1960's, mortality from respiratory failure in myasthenia approached up to 70%. More recent studies have displayed mortality from this complication at 26% and 5% in 1979 and 1983 respectively.^{5, 1} This is almost certainly due to an improvement in ventilatory care. Of note is that all reported survivors carried a known diagnosis of myasthenia gravis which preceded respiratory failure. In none was respiratory failure the presenting symptom of myasthenia gravis as occurred in the present case.

Correction of the condition precipitating respiratory failure is critical to successful management of the respiratory complications. In monitoring a patient's respiratory status, one must remember that considerable weakness of respiratory muscles is present before changes in blood gases are evident. In a previously diagnosed patient, more immediate information may be obtained by measuring maximal static respiratory forces, maximum expiratory pressure and maximum inspiratory pressure, and vital capacity. These may be measured at the bedside by trained personnel and may provide the earliest indicators of impending respiratory failure.¹ Appropriate therapy may then be instituted before serious complications occur.

This atypical case reminds us that myasthenia gravis should be considered in the differential diagnosis of all patients with unexplained respiratory failure. □

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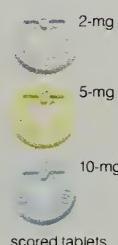
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Editorial

TRUE (PALMETTO) BLUE

Whatever controversy may have been present at the recent, 141st annual meeting of our association passed largely unnoticed. The prevailing tones were good will and efficient organization. If any group of persons complained, it must have been the news reporters. They seemed hard-put to find anything controversial to write about.

Nevertheless, one theme was heard over and over, both publicly and privately: "We're going to hear more and more about socialized medicine."

The theme is hardly new. I can remember my own father, a physician, gently suggesting back in the '50s that I might consider another field: "Medicine's going to be socialized; the politicians want to play Santa Claus." Like most physicians of his day, he charged reasonable fees for those who could pay and treated numerous others with little or no hope for reimbursement. Medicare and Medicaid reduced the numbers of such patients but made prophets of those who warned of the Trojan horse effect. What characterized this year's annual meeting was a new sense of fatalism that socialized medicine *will* happen—in the near future.

On Sunday morning, we were told that movement in this direction would be media-driven. We were reminded that a Harris poll of 3,000 Americans showed that 89% favored a change in health care financing and that 62% specifically favored the Canadian system. In his inaugural address the previous evening, Dr. Daniel Brake shared with us the conclusion of Canadian medical leaders that nobody seems especially happy with that system. Politicians have stopped talking about unlimited comprehensive care; patients endure long waits for

elective procedures; physicians experience anxiety over their loss of control. Our new president outlined his plan for a committee to study the alternatives and urged that all physicians must become involved in organized medicine.

The agenda before the editorial board of *The Journal* at its annual meeting was less formidable. We did, however, discuss a number of issues—one of which was our cover. Joy Drennen provided us with an alternative format for the journal and suggested two basic schemes: white (with blue lettering) or blue (with white lettering). After some discussion, blue prevailed. Someone suggested that it ought to be *Palmetto* blue. Everyone liked the idea, and we charged our printer to find a *true* Palmetto blue.

It seems appropriate that the new cover and the new call for involvement should coincide. We now prepare for events destined to shape the face of medical practice for the year 2000. *The Journal* and the SCMA have grown and changed together ever since the year 1900, when Dr. Walter P. Porcher of Charleston urged the formation of a journal at the SMCA's golden anniversary meeting. Our organization had scarcely 150 members and essentially no money at the time; a journal was considered to be impractical. Five years later, however, the House of Delegates determined "that a journal would be of the greatest value in strengthening and maintaining" our organization and that every member "should regard it as a duty to work for its success."¹ The first cover featured the table of contents and the names of the association's officers. In time, *The Journal* came to symbolize medicine in South Carolina and to be a source of pride. It is our hope that

having each cover be the same, deep blue will enhance recognition of *The Journal* and hence visibility of our organization.

A high point of this year's annual meeting was Dr. Charles Sasser's Sunday morning address to the House of Delegates. He asked us to imagine that all of our socioeconomic problems have been filed away. What, then, remains? Dr. Sasser's concept of "the wounded healer" touched everyone. Implicit in this concept is the notion that we are professionals, not

tradesmen, and that our concerns far transcend our own economic betterment. We must re-emphasize this message. *The Journal*, for its part, is of the South Carolina Medical Association but for South Carolinians.

True (Palmetto) Blue.

—CSB

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ON THE COVER: EARLY MEDICAL JOURNALISM IN SOUTH CAROLINA

In appreciation of the dramatic change in the format of *The Journal*, we thought a backward look at earlier medical journalism in South Carolina might be in order. Our cover this month shows the title page of the first such effort, *The Charleston Medical Register for 1802*, established by the renowned historian and physician of Charleston, Dr. David Ramsey. This pamphlet was proposed to continue as a periodical which would give accounts of local medical affairs. Unfortunately volume 1, number 1 was the first and last of this series.

The next attempt, the quarterly *Carolina Journal of Medicine, Science and Agriculture*, established in 1825 and edited by Drs. Thomas Y. Simons and William Michel, lasted one year.

The Southern Journal of Medicine and Pharmacy published two volumes before changing

its name in 1848 to *The Charleston Medical Journal and Review*. This publication flourished until 1877 with a hiatus of 13 years during and after the war. The *Charleston Journal* was "received in every state of the South and West . . . [and] there was no journal in this section of the country . . . more frequently searched and quoted from."

After the demise of the *Charleston Journal*, there was no medical periodical for the state until the founding of the *Journal of the South Carolina Medical Association* in 1905, which will be another story.

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*Excerpted from an article by Joseph I. Waring,
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Auxiliary Page

HEALTH EDUCATION TAKES TO THE ROAD IN SOUTH CAROLINA

When the state legislature passed the South Carolina Comprehensive Health Education Act in 1988 mandating health education for all students from kindergarten through twelfth grade, the SCMA Auxiliary proposed a unique concept to assist in fulfilling this objective: MOBILE HEALTH EDUCATION.

The Auxiliary, long concerned about South Carolina's numerous health problems, actively supported passage of this health legislation. Feeling an urgency to assist in fulfilling its objectives, a group of auxilians originated the idea of purchasing and outfitting a Health Education Van that would carry portable health exhibits, teaching aids and special teachers to promote wellness and disease prevention throughout the state.

The first order of business was to elicit the collaboration of Dr. Charlie G. Williams, State Superintendent of Education, to assist in developing the plan from "concept to concrete." Representatives of the Van Committee visited the Robert Crown Center in Hinsdale, Illinois, to learn their methods for teaching health using three-dimensional exhibits. The knowledge gained there was integrated with the previously determined health needs in South Carolina to define the following teaching areas: Substance Abuse Education, Reproductive Health Education, Nutrition Education, Pregnancy Prevention, Sexually Transmitted Diseases and AIDS Education.

To purchase the van and its exhibits, the SCMA Auxiliary joined forces with the SCMA and its charitable foundation, the S. C. Institute for Medical Education and Research (SCIMER) to mount a fund-raising campaign. The medical community, including individuals, medical societies, and 100% of the county auxiliaries, contributed generously, raising the necessary funds in less than a year.

A grant from the Centers for Disease Control in Atlanta, Georgia, made it possible to include materials for AIDS education. The S. C. Department of Education received state funding to hire two specially trained health educators to operate the van and provide exhibit-oriented training and instruction to teachers and students in the state. Dr. Bambi Sumpter and Dr. Katy Wynn were chosen to be the Health Education Van Consultants because of their dynamic personalities as well as for their exceptional educational qualifications and experience in the health education field.

The van's portable three-dimensional exhibits were created by the Richard Rush Studio, Inc., of Chicago, which has experience in designing health centers and displays worldwide. The exhibits can be set up in a classroom-like mode with two eight-foot snap out frames covered with velcro used as a background. Spotlights are fastened to the backdrop to illuminate the exhibits. Each exhibit has its own carrying case and can be tightly secured by straps on the shelves of the van during travel.

The Health Education Van serves as a supplement to textbooks. Classes of approximately 35 children per hour provide optimum teacher/student contact. The exhibits and educational materials are programmable for all ages. The van is available for use by community groups and county medical societies and auxiliaries as often as the Department of Education schedule permits.

A news conference was held on February 21, 1989 to introduce the van to the media, and the van was on display on the State House Grounds. Governor Carroll Campbell signed a proclamation declaring the day to be TOTAL HEALTH DAY in recognition of the progress being made toward a healthy citizenry. The van has since been travelling the roads of South Carolina, including a trip to Charleston where it and the exhibits were on display during the SCMA and SCMA Auxiliary Annual Meetings.

Excerpted from an article by Maggie Bowles and Nancy White which appeared in Facets.

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It's called talking. Right or wrong, many older people today feel that doctors just don't spend as much time talking with their patients as they used to. Things seem more rushed and hurried.

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Make it a point to tell them what they need to know — the medicine's name, how and when to take it, precautions, and possible side effects. Give them written or printed information they can take home, and encourage them to write down what you tell them.

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LYME AND OTHER TICK-BORNE DISEASES ACQUIRED IN SOUTH CAROLINA IN 1988: A SURVEY OF 1,331 PHYSICIANS*

STANLEY H. SCHUMAN, M.D., Dr. P.H.
SAMUEL T. CALDWELL, M.A.

During 1988, physicians reported to the South Carolina Department of Health and Environmental Control 23 cases of Rocky Mountain Spotted Fever (RMSF) and ten cases of Lyme disease. Unlike RMSF, many states do not require the reporting of Lyme disease. In 1989, Lyme disease and ehrlichiosis were made reportable diseases in South Carolina.¹

Lyme disease was first diagnosed in Connecticut in 1975. This spirochetal infection (*Borrelia burgdorferi*) has spread through the east, the upper midwest and western portions of the U.S.² Since 1980, sporadic cases of Lyme disease have been reported in the south; Georgia in 1980,³ Arkansas in 1982,⁴ and North Carolina in 1983.⁵ In 1988, serologically confirmed cases were documented⁶ in the following southeastern states: Alabama—1, Georgia—59, North Carolina—12, Tennessee—13 and Virginia—25. The first case in South Carolina was reported in 1985⁷ and involved a nine-year-old boy infected during the summer of 1984.

The authors' interest in Lyme disease increased after a relative of a co-worker and a Sumter County client of the Cooperative Extension Service developed clinical symptoms

following tick bites in the late summer and fall of 1988. A survey was needed to determine the extent of Lyme and other tick-borne disease in South Carolina.

METHODS

A field tested questionnaire with postage-paid return envelope was mailed to each of 2,346 primary care physicians in South Carolina. The survey population was identified by practices listed in the 1988-1989 Directory of the State Board of Medical Examiners as family practice, internal medicine, pediatrics, general practice, emergency medicine or occupational medicine. The physicians were asked to report total cases of tick-borne infection, acquired in South Carolina, diagnosed or treated in 1988 and to classify each case by age group, hospitalization and category of tick-borne disease. Case definitions or exclusions were not provided. The category of "other tick-borne disease" was intended to retrieve any case of tick-related fever including the newly described ehrlichiosis, as well as cases which the respondent was reluctant to classify in the absence of laboratory confirmation. Because of special interest in Lyme disease, physicians were asked to specify the number of Lyme disease cases that were serologically confirmed and to describe their most interesting case on the back of the form.

* From the Agromedicine Program, Department of Family Medicine, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425 (address correspondence to Dr. Schuman).

RESULTS

A total of 1,331 questionnaires (57%) were returned. Sixteen percent ($n=213$) of the responding physicians reported diagnosing or treating one or more cases of tick-borne disease. Family practice physicians accounted for 54% of the cases, internists for 18%, pediatricians and emergency room physicians for 11% each, general practice 5% and occupational medicine <1%. Family practice accounted for a slightly greater percentage of Lyme cases (54% cases versus 49% proportion of respondents). Respondents who reported cases diagnosed or treated by other physicians under their supervision as well as identical reports from members of the same group practice were excluded in order to avoid double reporting.

Respondents reported 467 cases of tick-borne disease in South Carolina in 1988; 344 cases of RMSF, 90 cases of Lyme disease and 33 cases of other tick-borne disease (Table 1). Serological confirmation was reported for 34 (38%) of the Lyme disease cases. Children 14 years of age and younger accounted for 40% of the RMSF cases, 23% of the Lyme disease and 18% of the other tick-borne disease category. Thirty-five percent of RMSF cases required hospitalization as compared to 20% of the Lyme disease cases and only nine percent of the other tick-borne disease (Table 2).

Table 3 lists the cases of RMSF, Lyme disease and other tick-borne disease by county of practice of the reporting physicians. The upper

Piedmont region of the state accounted for the majority of RMSF cases. Seventy-one percent of the total occurred in seven counties: Anderson, Cherokee, Chester, Greenville, Pickens, Spartanburg and York. Lyme disease was reported in 27 counties throughout the state. Richland County had the most cases of Lyme disease ($n=16$) followed by Charleston County with 10 cases. Serologically confirmed cases of Lyme disease ($n=34$) were also distributed throughout the state with Richland and Greenville Counties accounting for 40% of the total. Reports of other tick-borne infections were also scattered around the state. Almost 40% ($n=13$) of the cases in the other tick-borne disease category were reported in Hampton County. One Hampton County physician reported a series of ten cases in timber workers who developed flu-like symptoms following a history of tick bite. Rashes were not detected in these patients, but all responded to antibiotics.

DISCUSSION

Is 1988 a transition year for the diagnosis and treatment of tick-borne disease in South Carolina? With more cases of Lyme disease being recognized across the country and more emphasis on early diagnosis and treatment, responding physicians made *nine times* as many diagnoses of Lyme disease in 1988 than were reported to the health department. It must be remembered that Lyme was not a reportable disease in 1988. The discrepancy

TABLE 1
1988 Physician Survey of Tick-Borne Disease in South Carolina

Tick Borne Disease	Total Cases Reported	Case Reports ^a			
		Hospitalized ≤ 14 Age	Hospitalized ≥ 15 Age	Not Hospitalized ≤ 14 Age	Not Hospitalized ≥ 15 Age
RMSF	344	35	85	104	110
LYME	90 ^b	6	12	15	47
OTHER	33	1	2	5	20
TOTAL	467	42	99	124	177

^a Hospital status was not reported for 10 cases of RMSF, 10 cases of Lyme disease and five cases of other tick-borne disease.

^b 34 cases were serologically confirmed.

TABLE 2

Severity of Tick-Borne Disease
As Indicated By Hospitalization Rates
(Percent=N Hospitalized/N Cases x 100)

Category	N	Age \leq 14	Age \geq 15	Total
RMSF	344*	25%	44%	35%
LYME	90	29%	20%	20%
OTHER	33	17%	9%	9%
TOTAL	467	25%	36%	30%

* Two deaths reported

between the number of survey cases and number of reported cases is not unexpected. In New Jersey, with eight years of experience with Lyme disease, 1,400 cases were reported to the health department which accounted for only 25% of the estimated treated cases.⁸ In Georgia, where the health department laboratory offered free laboratory analysis in 1988, the number of serologically confirmed cases increased from four in 1987 to 59 in 1988.⁹ Wisconsin will show at least a 50% increase in reported cases of Lyme disease during 1988 (from 500 to 1,000) due to the voluntary reporting of one large medical center which has been quietly diagnosing and treating cases for three years without making reports to their health department.¹⁰ Thus the incidence, prevalence and trends of Lyme disease are still being pieced together from clinical and public health sources of data.

Entomologists nationwide are still trying to explain the increased number of human cases and co-host cases (cats, dogs and cattle) in urban and suburban areas. The ecology of parasitism in Lyme disease requires teamwork among clinicians, entomologists and veterinarians.

The county distribution in Table 3 should be interpreted with caution since the residence of each patient was not charted in this survey.

In the meantime, a practitioner in South Carolina is faced with the following facts:

(a) *S.C. is endemic for tick-borne RMSF*, whose vector is the dog tick. Similarity of hosts, habitat and climate for Lyme disease exists. Twenty-seven of 46 counties report Lyme disease so far.

TABLE 3

Reported Cases of Tick-Borne Disease
In South Carolina By County of
Physician Respondent, 1988

County	Total	RMSF	Lyme (n) ^a	Other
Abbeville	2	2	0	0
Aiken	5	0	5 (1)	0
Anderson	52	50	2	0
Bamberg	2	2	0	0
Barnwell	1	0	1	0
Beaufort	11	6	4 (2)	1
Berkeley	2	1	1 (1)	0
Charleston	23	10	10 (2)	3
Cherokee	18	17	1	0
Chester	16	15	1 (1)	0
Colleton	1	1	0	0
Darlington	8	6	1	1
Dillon	1	1	0	0
Dorchester	8	2	3 (2)	3
Edgefield	3	2	1	0
Fairfield	8	4	4	0
Florence	6	4	2 (2)	0
Georgetown	1	1	0	0
Greenville	39	35	4 (4)	0
Greenwood	12	8	3 (1)	1
Hampton	13	0	0	13 ^b
Horry	9	4	5 (2)	0
Jasper	1	1	0	0
Lancaster	8	3	3 (1)	2
Laurens	6	1	5	0
Lexington	6	3	2	1
Marion	2	1	1	0
Marlboro	2	2	0	0
McCormick	3	3	0	0
Newberry	3	1	0	2
Oconee	2	2	0	0
Orangeburg	2	1	1 (1)	0
Pickens	18	14	3 (1)	1
Richland	43	25	16 (10)	2
Saluda	1	1	0	0
Spartanburg	76	71	3	2
Sumter	2	0	2	0
Union	2	1	1	0
York	49	43	5 (3)	1

^a Serologically confirmed cases, n=34

^b Ten of 13 cases were reported by a single physician; all patients were timber workers who developed flu-like symptoms following tick bites.

- (b) *A tick survey* for the principal Ixodes vectors of Lyme disease in S.C. has yet to be conducted. A team of Clemson University and University of South Carolina entomologists plans to study ticks in relation to recent human cases in 1989.
- (c) *Clinical spectrum of Lyme disease* involves all the systems and the three classic stages of another treponematosis (syphilis), with similar serious consequences for delayed or inadequate antibiotic treatment, relapse or reinfection.¹¹
- (d) *Current methods of serologic confirmation of diagnosis are inconsistent* and vary with the stage of infection, treatment, immunologic response to borrelia and quality of laboratory. Isolation of borrelia from lesions, confirmed by specific staining and dark-field microscopy, is the only unquestioned standard for diagnosis.
- (e) *For the patient, prudent behavior* is to practice tick-hygiene. This worked for decades to prevent Colorado tick-fever and rickettsioses. One should note time and report unusual symptoms and rashes after tick exposure to one's physician. The latest information on tick control can be obtained from the county Cooperative Extension Service office.
- (f) *For the physician, prudent behavior* is to be alert to the likelihood of Lyme disease vectors in his community. Case-reports from Wisconsin, New Jersey and New England are increasingly regarded as "backyard" infections. One needs to recognize the early stages of Lyme with and without the rash. The advantages of early diagnosis, appropriate antibiotics, follow-up, and evaluation are self-evident.
- (g) *Case-reporting to the South Carolina De-*

partment of Health and Environmental Control should be encouraged. This will help define the frequency, severity and distribution of cases. It may help funding for concerned agencies to improve their services and to limit morbidity. This survey can serve as a first step.

SUMMARY

2,346 primary care physicians were surveyed by mail to estimate the number of cases of tick-borne fever diagnosed by them during 1988. The results of the 57% response reveal 344 cases of Rocky Mountain Spotted Fever, 90 cases of Lyme disease and 33 other tick-borne disease cases acquired in South Carolina. The implications for a greater level of clinical awareness and a search for endemic vectors and animal hosts are emphasized. □

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ACUTE PANCREATITIS IN A FIVE-YEAR-OLD MALE*

TIMOTHY J. MADER, M.D.
JETER P. TAYLOR, M.D.
TERRANCE P. McHUGH, M.D.

Acute pancreatitis is frequently not considered as a cause of abdominal pain in children. However, the recent medical literature has challenged this view; current estimates suggest the overall incidence of acute pancreatitis in children is one in 50,000, or ten times greater than previously reported.¹ We present a case report to make physicians more aware of this entity.

CASE REPORT

A five-year-old black male presented to the ED after waking up with severe epigastric pain. His mother stated he had been complaining of some nausea and loss of appetite earlier in the day; additionally, he had had no bowel movement in the past three days. She denied any history of fever, chills, recent viral illness, sickle cell anemia, dysuria, insect bites, antecedent trauma or recent use of medication. The child, himself, only complained of abdominal pain. He had several episodes of clear emesis while in the ED.

On physical examination, the patient appeared to be in mild distress. He weighed 26 kg. Vital signs included: oral temperature, 98°F; pulse, 80 beats/minute; respiratory rate, 20 breaths/minute; and blood pressure, 116/74 mmHg. Examination of the head, neck, lungs, and cardiovascular system were within normal limits. The abdomen was soft, but exhibited tenderness to light palpation of the right upper quadrant and epigastrium. Bowel sounds were auscultated in all four quadrants; no rebound tenderness, masses, hepatosplenomegaly or psoas sign was detected. Rectal exam demonstrated the presence of hard, guaiac-negative stool. His skin had good turgor and no rash was seen.

* From the Department of Emergency Medicine, Richland Memorial Hospital, Five Medical Park Road, Columbia, S.C. 29203 (address correspondence to Dr. Mader).

An intravenous line of D₅0.2NS was started and base line laboratory functions obtained. The white blood cell count was 11,000 cells/mm³; hemoglobin, 12.0 g/dL; and hematocrit, 34.7%. Urinalysis revealed a specific gravity of 1.026; pH, 5.0; glucose, 1000 mg/dL; ketones, 0; red blood cells, 0 cells/hpf; and white blood cells, 20-25 cells/hpf. A sickleddex test was negative. Abdominal roentgenograms revealed abundant stool in the large colon, but no abnormal air/fluid levels or evidence of perforation were noted.

While being observed in the ED and despite the passage of a large, firm stool, the patient's clinical condition worsened. Because of his increasing pain, pediatric surgical consultation was requested and additional laboratory studies ordered. Results included sodium, 150 mEq/L; potassium, 3.3 mEq/L; chloride, 104 mEq/L; serum bicarbonate, 25 mEq/L; glucose, 242 mg/dL; BUN, 10 mg/dL; creatinine, 0.4 mg/dL; and serum amylase, 650 u/L. Repeat abdominal roentgenograms now demonstrated the presence of a mild paralytic ileus.

Subsequently, the patient was admitted to the pediatric service with a diagnosis of acute pancreatitis; he was maintained at bed rest and received only intravenous fluids for the next several days. Abdominal sonography demonstrated a diffusely enlarged, hypoechoogenic pancreas with no evidence of biliary obstruction or pseudocyst formation. A hepatitis panel was negative for acute hepatitis A or B, and a urine drug screen was only mildly positive for the presence of caffeine. Viral serology was negative.

The patient's serum amylase reached a maximum of 934 u/L within 24 hours of admission and then returned to normal over a three-day period. His urinary amylase peaked at 3271 u/L and also fell rapidly. After three days of hospitalization, the patient was tolerating oral

liquids; he was discharged after five days with a diagnosis of idiopathic pancreatitis.

DISCUSSION

Acute pancreatitis is often divided into two types: an interstitial, or edematous variety; and a fulminant, hemorrhagic form.² While interstitial pancreatitis usually follows a benign clinical course, hemorrhagic pancreatitis can be life-threatening, especially in children where it carries a mortality rate of up to 86%.² Overall, both types of pancreatitis have a mortality rate of 30% in children, compared to 12% in adults.³ Because it is difficult to predict a patient's course at the time of admission, every case must be treated as a medical emergency.⁴ Unfortunately, in up to one-third of cases the diagnosis is not suspected before surgery or autopsy; a high index of suspicion remains essential for early diagnosis and treatment.³

The list of identifiable causes of acute pancreatitis in children is constantly expanding as new precipitating factors are recognized (see Table 1). Although some etiological similarities exist between children and adults, their relative frequencies are quite different. Approximately 70-85% of adult cases have either underlying cholelithiasis or a history of significant alcohol abuse; neither of these problems is typically encountered in the pediatric population.^{2, 4} When an etiology can be clearly established in childhood cases, 80% are secondary to trauma, medications, or infections; the remaining 20% are either idiopathic, or secondary to systemic diseases (particularly sickle cell anemia and diabetes mellitus), anatomic or hereditary factors.^{1, 2, 5, 6} Alcohol ingestion remains an important consideration in the older adolescent.

In recent reviews, numerous researchers have found trauma to be the single most common etiological agent.^{2, 3, 5} Traumatic pancreatitis can follow surgical or major trauma; however, it can also follow subtle, even forgotten abdominal injury, such as falling across bicycle handle bars or incidental contact during sporting activities.^{1, 3} Pancreatitis may also be the sole manifestation of child abuse, accounting for 10% of the total cases in one series.^{3, 5}

Medications caused 23% of the total cases in the series reported by Cox.¹ Drug induced pan-

creatitis may be due to a child's own prescription medications, such as valproic acid, corticosteroids, or tetracycline; parenterally administered drugs, such as azothioprine or L-asparaginase; or possibly the accidental ingestion of other agents, such as oral contraceptives, furosemide, or thiazide diuretics.¹ Presently, steroids are the most frequently implicated medication causing pancreatitis.^{1, 2}

Infections presently account for 15% of childhood cases, but this percentage is likely to increase as the recognition and characterization of infectious etiologies improve.¹ Mumps is currently the most common offender within this category.^{1, 2} Other infectious agents associated with acute pancreatitis include the Epstein-Barr virus, cytomegalovirus, Hepatitis A and B viruses, and others.¹

In contrast to adults, abdominal pain in children may be absent or nonepigastric in location.^{1, 5} The presenting complaints in children can be vague, but commonly include lethargy, fever, nausea, vomiting, or jaundice.^{1, 2} The physical examination is also likely to be non-localizing, offering few clues to the correct diagnosis. The child typically lies very still on one side. Abdominal distension, icterus, ascites or pleural effusion can occasionally be detected clinically.^{1, 2, 5} Sometimes, children present subacutely with a palpable pseudocyst.⁵

Currently, measurement of the total serum amylase (SA) is the most widely performed laboratory test. However, it has several limitations: SA can be elevated in a number of other pathological conditions;⁶ SA's degree of elevation does not correlate with the severity of the disease;⁵ SA levels rapidly return to normal and may not be elevated if some delay in presentation has occurred;⁷ and SA levels may never become elevated, even in histologically proven cases.^{6, 8} Therefore, if doubt exists as to the correct diagnosis, further testing may prove useful. Because serum lipase values are more specific than SA and remain elevated for a longer period of time, they may aid confirmation.¹ Isoamylase measurements are also more specific than SA; they may be of value, especially when coupled with a lipase determination.⁷ Trypsinogen assays are the most sensitive and specific tests, but they are not widely available.⁹ The ACCR (amylase creatinine

Table 1 — Etiology of Childhood Pancreatitis**Idiopathic****Hereditary****Traumatic**

Blunt
Post-Operative
Child Abuse

Infectious

Mumps
Epstein-Barr
Hepatitis A and B
Cytomegalovirus
Rubella
Rubeola
Influenza A
Coxsackie B
Mycoplasma
Leptospirosis
Ascaris lumbricoides

Structural

Biliary Tract Disease
Cholelithiasis
Choledochal Cyst
Intraductal Duplication
Ductal Stricture
Annular Pancreas
Nonfusion of the Dorsal and Ventral Pancreas
Anomalous Insertion of the Common Bile Duct
Tumor

Toxic or Drug-Induced

Corticosteroids
Thiazides
Alcohol
Valproic Acid
Furosemide
Ethacrynic Acid
Tetracycline
Trimethoprim-Sulfamethoxazole
Sulfasalazine
Rifampin
Metronidazole
Oral Contraceptives
Azathioprine

Systemic Illness

Hyperlipidemia Types I, IV and V
Kawasaki Disease
Cystic Fibrosis
Lupus Erythematosus
Periarteritis nodosa
Hyperparathyroidism
Diabetes Mellitus
Renal Failure
Schlein-Henoch Purpura
Crohn's Disease
Glycogen Storage Disease I
Alpha 1-Antitrypsin Deficiency
Malnutrition
Perforated Peptic Ulcer

clearance ratio) has not been validated in the pediatric population.^{6, 10}

Several imaging techniques are helpful in confirming the diagnosis of acute pancreatitis. While abdominal roentgenograms occasionally demonstrate subtle, nonspecific signs, such as a sentinel loop, they prove most useful in excluding other intra-abdominal pathology.⁴ Abdominal ultrasonography is an extremely valuable adjunct to clinical evaluation; many consider sonography the imaging

technique of choice in childhood pancreatitis.^{1, 5, 8, 10} When present, pancreatic enlargement and hypoechoogenicity are highly suggestive of acute pancreatitis.^{1, 10} If localized areas of density are noted within the pancreas, hemorrhagic pancreatitis should be considered. Pseudocysts can also be readily visualized.⁵ The major limitation to ultrasound is the presence of overlying, distended bowel loops which preclude adequate examination in approximately 14-25% of cases.^{5, 8} Although

abdominal computed tomographic (CT) scanning improves the resolution in pancreatic imaging, it rarely provides additionally useful clinical information.¹ However, CT does have definite utility in cases when ultrasonography is technically inadequate or there is a need to image other abdominal structures as well.⁵ This is a controversial area and some clinicians consider CT to be the initial imaging technique of choice.⁴

Other diagnostic modalities occasionally employed include endoscopic retrograde cholangiopancreatography (ERCP), angiography, isotopic scanning, peritoneal lavage and exploratory laparotomy.^{3, 6} Fortunately, these procedures are rarely, if ever, indicated in children. ERCP is useful in demonstrating obstructing lesions or stones, ductal strictures, duplication and other anatomic misalignments; these are more often associated with chronic, relapsing pancreatitis.^{1, 6} Diagnostic laparotomy should be avoided whenever possible.¹⁰

Complications of acute pancreatitis include phlegmons, pseudocysts, abscesses, fistulas, acute renal failure, and acute respiratory distress syndrome.¹ Such complications are often the result of a delay in correct diagnosis and tend to be associated with increases in morbidity and mortality.

SUMMARY

Acute pancreatitis should be considered in

all children presenting with acute abdominal complaints. A complete history should be obtained with emphasis on recent trauma, infections, current medications, and the presence of any systemic diseases. Simple laboratory studies and non-invasive imaging techniques can usually confirm the clinical suspicion. Most cases of interstitial pancreatitis resolve uneventfully but hemorrhagic pancreatitis carries a significant mortality risk. □

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SCMIA NEWSLETTER

JULY 1989

MEDICAID UPDATE

Increase in the Number of Medicaid Recipients

The income eligibility limit for pregnant women and infants was increased to 185% of the federal poverty guidelines effective July 1, 1989. Under the new income guidelines, the Medicaid program expects to sponsor 40 to 60 percent of the deliveries in the state. The State Health and Human Services Finance Commission hopes that providing sponsorship for health care for more pregnant women and infants will be helpful in South Carolina's effort to reduce the infant mortality rate.

Adult Physicals

Physical exams for adults age 21 and older will be reimbursed by Medicaid at a rate of \$100 per examination effective July 1, 1989. These exams will be limited to one examination per recipient every five years. Providers may submit claims using procedure code 90750 and diagnosis code V70.9.

Back Transfer Policy for Neonates

Effective July 1, 1989, the following supplemental codes should be used by pediatricians and family practitioners who accept NICU graduates back to Level I and II hospitals:

<u>Procedure Code</u>	<u>Description</u>	<u>Reimbursement Rate</u>
S9661	Initial hospital exam for an infant transferred from a Level III NICU	\$100.00
S9662	Subsequent care - extended or intermediate hospital care for a NICU graduate transferred from Level III NICU	\$ 50.00/day
S9663	Subsequent care - limited or brief hospital care for a NICU graduate transferred from Level III NICU	\$ 30.00/day

Implemented Previously

S9660	Initial office visit for a NICU graduate	\$ 80.00
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Physician Fee Increase

Physician fee increases were effective July 1, 1989. The following areas were approved for increases: Anesthesia Codes, Audiologic Function Test, Critical Care Codes, Emergency Room Codes, Gynecological Codes, Hospital Care Codes, Long Term Care Codes, Neonatology Codes, Neurology and Neuromuscular Procedures, Obstetrical Codes, Office Visit Codes, Oncology Codes, Physical Medicine, Psychiatric Codes, Pulmonary Codes, Surgical Codes and Vision Care Codes.

A new fee schedule will be published and distributed with the updated Physicians' Manual.

If you have any questions, please contact your program manager at 253-6134 in Columbia.

PRO UPDATE

Physician Consultant Requirements

In order to perform peer review for Carolina Medical Review (CMR), a physician must:

- * have an unrestricted license to practice medicine or osteopathy in South Carolina;
- * be a member of the active staff of at least one medical care facility subject to PRO review; and
- * be Board certified or Board eligible in a specialty recognized by the American Board of Medical Specialties.

In the review process, every attempt is made not only to match the reviewer with the specialty of the attending physician, but also to select a reviewer from a similar hospital setting (urban or rural). CMR still has a need for subspecialists to participate in the peer review process, particularly cardiologists, cardiovascular surgeons and neurosurgeons. Any physicians interested in performing peer review should contact Keith H. Waters, MD, medical advisor for CMR, at 1-800-922-3089 or 731-8225 in Columbia.

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SC POLITICAL ACTION COMMITTEE

During the last two sessions of the Legislature, the SCMA dealt with issues such as mandatory assignment, independent practice for nurses and physical therapists, mandated health insurance benefits for chiropractors, infectious waste, tort reform and AIDS, just to name a few. The SCMA introduced legislation limiting the scope of practice of chiropractors, regulation of utilization review agencies and several insurance related bills. Another bill of particular interest was introduced by the SCMA to ease the licensing requirements to allow physicians, particularly in rural areas, to practice in South Carolina. This bill passed at the end of the 1989 legislative session.

SOCPAC helps elect and maintain friends of medicine in the Legislature, as well as defeat opponents of organized medicine. Next year will be an election year, and is the year that we will elect the governor and lt. governor. Full support is needed in order to participate at an appropriate level in these elections.

If you are not a member of SOCPAC, join today by sending your check for \$100.00, payable to the SC Political Action Committee, to SCMA, PO Box 11188, Columbia, SC 29211.

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UPCOMING CONFERENCES

The South Carolina Chapter of the American Academy of Pediatrics Annual Scientific Program, "Pediatric Update," is scheduled for August 3-6, 1989, at The Grove Park Inn, Asheville, NC. The speakers include Frank A. Oski, MD, Johns Hopkins Children's Center; Heinz F. Eichenwald, MD, University of Texas; and William B. Strong, MD, Medical College of Georgia. For registration information, contact Debbie Shealy in Columbia at 798-6207, or 1-800-327-1021.

"The Severity and Quality Dilemma," sponsored by the SC Hospital Association, the SC Society of Hospital Risk Management and Quality Assurance Professionals and the SCHA Loss Control Subcommittee, will be held August 10-11, 1989, at the Myrtle Beach Hilton, Myrtle Beach, SC. For further information, contact Doris Clevenger, SCHA, PO Box 6009, West Columbia, SC 29171-6009, or 796-3080.

The South Carolina Society of Pathologists Annual Meeting is scheduled for September 15-17, 1989, at the Mariner's Inn, Hilton Head Island, SC. For details, contact Debbie Shealy at 798-6207 in Columbia, or 1-800-327-1021.

The SC Commission on Aging's 13th annual Summer School of Gerontology will be held August 6-11, 1989, at Winthrop College in Rock Hill. The program is planned to meet the needs of a wide variety of participants who work in the field of aging, including practitioners, educators, agency personnel and lay persons. The registration fee is \$15.00 which must be received by July 21. An additional \$15.00 will be charged for late registrations. For more information, call 735-0210 in Columbia.

CAPSULES

Susanne G. Black, MD, of Dillon, has been elected to a two-year term as secretary of the SC Commission on Aging.

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MARFAN SYNDROME IN THE PARTURIENT*

M. K. BAILEY, M.D.

R. HWU-YUN, M.D.

J. D. BAKER, III, M.D.

J. E. COOKE, M.D.

J. M. CONROY, M.D.

The Marfan Syndrome is an inherited disorder of connective tissue characterized by abnormalities of the cardiovascular, skeletal, and ocular systems. Cardiovascular complications, including aortic dilatation progressing to dissection and rupture, account for the 30-40% reduction in life expectancy among those individuals. Pregnancy poses an additional stress to patients with the Marfan Syndrome as evidenced in the literature by multiple reports of fatal aortic dissection during pregnancy, labor and delivery. The following case report describes the perioperative management of a pregnant patient with the Marfan Syndrome.

CASE REPORT

A 20-year-old caucasian female, G₂ P₁ A₀ with an estimated gestational age of 39.5 weeks, was brought to the operating room for an emergency Cesarean section because of fetal distress. Attempted version of a frank breech presentation earlier that day had resulted in the onset of contractions with marked fetal tachycardia and late decelerations. Past medical history was unremarkable except for known Marfan Syndrome for which the patient had been followed in High Risk Obstetric Clinic since the 27th week of her pregnancy. With the exception of frequent palpitations, symptoms of cardiovascular involvement were minimal with no complaints of chest pain, shortness of breath, orthopnea, paroxysmal nocturnal dyspnea, or edema. Medications on admission included atenolol 25 mgs. taken QID with reportedly sporadic compliance. Family history was strongly positive for the Marfan Syndrome with the patient's father and one sibling affected.

Physical examination revealed a thin white

female with long lanky extremities, deformed sternum, and pigeon chest. Marked scoliosis was present. Head and neck exam revealed no ocular or oropharyngeal involvement. Lungs were clear to auscultation. Cardiac examination revealed a II/VI systolic murmur at the apex but no definite click or gallop sounds could be heard. Blood pressure was 110/70 and pulse rate was 90 with an irregular rhythm. Peripheral pulses were 2+ and equal in all extremities. Abdominal examination revealed an obvious intrauterine pregnancy with stria but was otherwise unremarkable.

Blood chemistry values were within normal range. The electrocardiogram showed a sinus rhythm but with frequent multiform ectopic beats and nonspecific ST-T wave changes. Echocardiography performed one month prior to admission had revealed a 49mm dilatation of the aortic root with evidence of poor left ventricular function. Ejection fraction was recorded as 31% of normal. Also recorded were signs of systolic mitral valve prolapse with mild regurgitation but no evidence of aortic valvular abnormality.

Upon development of fetal distress, the patient was transported with oxygen to the operating room for immediate Cesarean section under general anesthesia. She was given Ampicillin 2gms and Gentamicin 80mg for endocarditis prophylaxis. Because of the patient's stable prenatal course and the emergent nature of the situation, an arterial line was not placed prior to surgery. Rapid sequence induction using cricoid pressure was accomplished with curare 3mg, sodium thiopental 250mg, and succinylcholine 120mg in order to protect the patient against the hazards of pulmonary aspiration. Anesthesia was maintained with 50% nitrous oxide and .5% halothane in oxygen prior to delivery of the baby. Sufentanil 25 micrograms was given in divided doses post

* From the Department of Anesthesiology, Medical University of South Carolina, 171 Ashley Avenue, Charleston, S. C. 29425 (address correspondence to Dr. Bailey).

delivery for additional analgesia. Pitocin 10mg was given immediately following delivery and an additional 20mg was added to the intravenous fluids for continuous administration. The patient's blood pressure and pulse were stable throughout induction and maintenance of anesthesia and at the end of the operation she was extubated and taken to the recovery room in satisfactory condition. The patient was monitored with electrocardiographic telemetry for three days postoperatively but demonstrated no signs or symptoms of cardiac decompensation. Both she and the baby were subsequently discharged with instructions for followup.

DISCUSSION

The Marfan Syndrome occurs in what is termed the "classic" form in four to 10 per 100,000 persons with no sexual, racial or ethnic predilection. Although conclusive evidence is lacking, it has long been assumed that an inborn error of protein metabolism, specifically of collagen or elastin, accounts for the pathologic alterations that are seen in affected individuals.¹ The pattern of inheritance is classified as autosomal dominant with variable penetrance and therefore the actual prevalence of the syndrome may be higher if one includes the less "florid" cases.

There is no laboratory test available to detect this disorder. Therefore the diagnosis must be made based on clinical evidence and its presence in other family members. The Marfan phenotype has been recognized historically by typical lesions involving the skeletal, ocular, and cardiovascular systems. However, more recently, dermal, pulmonary, and central nervous systems have also been shown to exhibit characteristic pathology. Multiple skeletal manifestations are very common, including tall stature with dolichostenomelia, scoliosis, joint hyperextensibility, and anterior chest wall deformities. Ocular abnormalities range from myopia and flat corneas to lens subluxation and retinal detachment. Inguinal hernias occur frequently and tend to be recurrent. Although an increased incidence of spontaneous pneumothorax has been reported, pulmonary involvement is more commonly due to kyphoscoliosis resulting in restrictive lung disease.

Auscultatory evidence of cardiac abnormalities occurs in 60% of patients and is secondary to mitral or aortic regurgitation and mitral valve prolapse. Cystic medial necrosis occurs in the wall of the ascending aorta leading to dilatation and aneurysm formation with subsequent risk of aortic rupture. This makes the Marfan Syndrome the leading cause of aortic dissection in patients under 40 years old. Unfortunately, electrocardiographic changes are rather nonspecific, and routine chest x-rays may remain within normal limits until aortic dilatation is already pronounced. Echocardiography is far more sensitive for detection of aortic root dilatation and has greatly improved the diagnosis and management of these patients.

The potential aggravation of these life threatening cardiac abnormalities by pregnancy is an important concern for the affected female. Schitker and Bayer² reviewed fatal aortic aneurysmal dissection in 141 people among whom 49 incidences occurred in women and half of these were during pregnancy. In studying 15 cases of fatal aortic dissection in pregnant patients, Sutinen and Piinoinen³ found that nine of these cases occurred in patients diagnosed with the Marfan Syndrome, and an additional four patients had equivocal manifestations.

It has been suggested that hormonal influences during pregnancy result in the loosening of ground substance in all body tissues⁴ and that this may extend any lesion already present in the aorta. In addition, the physiologic changes of increased cardiac output and blood volume during pregnancy magnify the shear force (dp/dt) of the blood column in the great vessels.⁴ Thus an increasing incidence of rupture tends to parallel the normal progressive changes occurring in the cardiovascular system. Husebye, Wolff and Friedman⁵ reviewed 51 cases of aortic dissection with 12 dissections occurring in the second trimester, 35 in the third, only four during labor and seven post partum, emphasizing the third trimester as the most lethal period.

These previous reports focused on fatal outcomes, but many women with the Marfan Syndrome are known to have had successful, uneventful pregnancies. In a retrospective analysis of risk determination, Pyeritz⁶ com-

pared three groups of patients. Groups I and II were used as controls and consisted of (I) wives of men with the Marfan Syndrome and (II) mothers of sporadic "mutant" children with the Marfan Syndrome. Group III consisted of 26 females diagnosed with the Marfan Syndrome. Each group was interviewed concerning cardiovascular problems prior to their first pregnancy. None of the patients in Group I reported any problems, but two patients from Group II recalled asymptomatic heart murmurs. Twelve of the Group III Marfan patients had diagnosed abnormalities with one patient moderately handicapped by mitral regurgitation and congestive heart failure. The prevalence of general complications of pregnancy such as hyperemesis, postpartum bleeding, and back pain, as well as the prevalence of mild cardiovascular complications, did not differ significantly among the study groups. The only death reported in this series was a Marfan patient with congestive heart failure who died shortly after pregnancy from bacterial endocarditis. The case report presented earlier supports Pyeritz's conclusion that the risk of death in pregnancy is low in those patients with mild cardiovascular involvement. However, patients with more than minimal aortic dilatation, aortic regurgitation, or hemodynamically significant mitral valve dysfunction are at high risk for developing life threatening cardiovascular complications during or shortly after pregnancy.

Occasionally, definitive surgical treatment of the patient with an aortic dissection during pregnancy becomes necessary. Cola and Lavin⁸ recently reported a case of acute aortic dissection in a pregnant patient with the Marfan Syndrome, who underwent successful aortic arch replacement and coronary artery bypass grafting. Gott, Pyeritz, et al⁹ reviewed 50 patients who had undergone composite graft repair of the ascending aorta with an 85% survival rate at five years. Based on their findings and the unfavorable natural course of the Marfan Syndrome, these authors recommend prophylactic repair when aortic dilatation reaches 60mm. The success of such preventive surgical techniques should favorably alter the risks of pregnancy in the Marfan patient.

Pyeritz⁶ recommends that any woman af-

fected by the Marfan Syndrome who is considering pregnancy be examined both clinically and by echocardiography to evaluate cardiovascular status. He suggests that those who have an aortic diameter less than 40mm with minimal cardiovascular involvement be counseled about the 50% genetic transmission rate and the small, but potentially catastrophic, risk of dissection of the aorta. These patients are advised to complete reproduction early in life, with emphasis on close prenatal supervision and the need for being followed in a High Risk Obstetric Clinic. Patients who are hemodynamically compromised or who exhibit greater than 40mm aortic root dilatation are advised by Pyeritz not to attempt pregnancy. In those who do, the advisability of therapeutic abortion becomes a consideration. Donaldson and de Alvarez recommend reserving this procedure for patients past the age of 30 who show evidence of definite aortic disease.

Most authors recommend vaginal delivery if possible, reserving Cesarean section for obstetrical indications or for the patient with an impending aortic dissection. If operative intervention is required, these patients should be managed so that minimal cardiovascular stress develops. All preoperative cardiac medications should be continued up until the time of surgery. The extent of invasive monitoring must be individualized according to the patient's cardiovascular status and circumstances. Hypertensive changes should be anticipated and controlled with appropriate drug therapy. All patients are at risk for bacterial endocarditis regardless of the presence of valvular abnormalities and, therefore, should receive prophylactic antibiotics. The increased incidence of spontaneous pneumothorax in these patients should be kept in mind as this occurrence may mimic an acute cardiovascular event. Oral cavity and airway should be thoroughly examined preoperatively since these patients have an increased incidence of highly arched and cleft palate, cleft lip, and double uvula. Positioning problems, resulting from extremes in height and skeletal abnormalities should also be anticipated. Postoperatively, these patients should be monitored closely for signs and symptoms of cardiac decompensation.

MARFAN SYNDROME

SUMMARY

Early recognition of the Marfan Syndrome and knowledge of its potentially lethal complications facilitates successful treatment of these individuals. It is through a joint effort by many specialist physicians such as the obstetrician, cardiologist, and anesthesiologist that these patients can be managed safely through pregnancy, labor, and delivery. □

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ERADICATION OF FILARIASIS IN SOUTH CAROLINA: A HISTORICAL PERSPECTIVE*

WADE D. REYNOLDS, M.P.H.
FRANCISCO S. SY, M.D., Dr. P.H.**

During the late 1700's many cases of *filaria sanguinis hominis* or filaria in the blood of man had been diagnosed and described in the literature throughout the southeastern U. S. with unusual frequency around Charleston, South Carolina.¹ The southeastern United States, especially Charleston, South Carolina and surrounding low country, has been documented as an endemic area for filariasis from the early 1800's. During this time one black resident of Charleston died each year between 1855 and 1858 of elephantiasis.² Currently, the vector-born diseases that were such a problem for the United States have been eliminated from the areas which they once ravaged. Diseases such as malaria and yellow fever once played a large role in the history of our nation, influencing policies and events of broad scope. South Carolina's contribution to the understanding of the epidemiology of filariasis is of interest and worthy of note for a number of reasons. South Carolina played a major role in understanding the epidemiology of filariasis and demonstrated an exemplary role in the implementation of a Charleston County vector control program which successfully eliminated this parasite from the Charleston environs within a six-year period.

HISTORICAL BACKGROUND

The parasitic filarial roundworm *Wuchereria bancrofti*, one of the causative agents of a disease known as Elephantiasis, is the most common of three closely related nematode worms that are collectively termed "Lymphatic Filariases." Two other species, *Brugia malayi* and *B. Timori*, are found in more geo-

graphically restricted areas of Indonesia and tropical Asia. The life cycle of filariasis incorporates both an intermediate host (the mosquito) and a final human host. Infected mosquitoes transmit the larval stage microfilaria to man through bites. These microfilaria migrate to the lymphatic vessels of the host where they mature into adult worms. Sexual reproduction in the lymphatic vessels produces the embryos or microfilariae which are released into the peripheral blood and are available to infect more mosquitoes and so complete the life-cycle. Chronic obstruction of the lymphatic system by the adult worms may lead to chyluria (the presence of milky appearing protein in the urine) or the grotesque distension of limbs, labia or scrotum for which the misnomer *elephantiasis* was coined.

W. bancrofti was first studied and shown to be transmitted by mosquito in 1877 by Patrick Manson while he was serving as a medical officer to the Chinese Imperial Maritime Customs Service in Amoy, China (one of several Chinese "treaty ports" that was established after the Opium War).³ Manson's pre-eminent work, published in 1878 and titled *On the Development of Filaria Sanquinis Hominis, and On the Mosquito Considered as Host*, established the mosquito as an intermediate host in which the development of the filarial roundworm was seen and implicated in the pathogenic transmission of the organism.⁴

Unfortunately, knowledge of mosquito entomology in the 1870's was very limited and most mosquitos were thought to feed only once and then die. As a result, Manson examined only the abdomen of the mosquitos and discarded the head and thorax. Both of these events conspired to lead Manson to the erroneous conclusion that actual transmission occurred "when the filaria sanguinis hominis . . . quit its nurse mosquito" and in a free living form was swallowed in contaminated water. This mode of infection was widely accepted for some 20 years until 1899 when Thomas Lane

* From the Department of Epidemiology & Biostatistics, School of Public Health, University of South Carolina, Columbia, S.C. (Dr. Sy); the South Carolina Department of Health & Environmental Control, Columbia, S.C. (Mr. Reynolds).

** Address correspondence & reprint requests to Dr. Sy at the Department of Epidemiology and Biostatistics, School of Public Health, University of South Carolina, Columbia, S.C. 29208.

Bancroft (son of Joseph Bancroft for whom the filarial parasite is named) suggested that transmission of *filaria sanguinis hominis* "may gain entrance to the human host whilst mosquitoes bearing them are in the act of biting."⁵ Thus the most important stages of the life cycle had been pieced together.

SOUTH CAROLINA'S ROLE

The excellent work of these investigators was continued via epidemiological investigations in Charleston, South Carolina by several physicians. Dr. John Guiteras, who earlier had been treating four Cubans in Key West, Florida for filariasis, determined to study the problem in Charleston in 1886.⁶ Dr. Guiteras examined a number of patients suffering from chyluria and other filaria related disorders. Over a period of four years, working in conjunction with several other physicians, Guiteras discovered microfilaria in the blood of some fifteen blacks and seven whites.⁷

These findings, and the continuing manifestations of elephantiasis in the city of Charleston and immediate surrounding area, spurred an investigation by Dr. Francis B. Johnson, who at the time was Professor of Pathology at the Medical College at Charleston. Dr. Johnson conducted a larger scale statistical survey in Charleston in order to discover the extent of the problem.⁸ Dr. Johnson's work which was completed in 1914 and published in 1915 reported that 19.25% of a survey of 400 patients admitted for all causes to Roper Hospital had blood smears that harbored microfilaria. This rate is roughly comparable to the rates found by studies performed during the same time period in parts of Africa, Puerto Rico and Lagos of West Africa.⁹ Dr. Johnson also conducted a poll of 50 local physicians in the Charleston area and asked them "What is the total number of cases of filariasis you have seen during your entire practice?" The reported results were 494 cases. However, the surveyed physicians also reported 244 cases of chyluria, 213 elephantiasis, eight both elephantiasis and chyluria and four other. The study also pointed out that some overlap of reporting could occur. These two studies served to elicit the interest of another researcher, Dr. Edward Francis, an officer of the United States Public Health Service. A year

later (in 1915) Dr. Francis conducted a similar study of Charleston's "Old Folks Home" which examined 37 residents and found 13 or 35% of the study group had microfilaria in their blood.¹⁰ Again in 1917 Dr. Francis undertook a study of nine southern towns with mosquito species and environmental conditions similar to Charleston to discover if there were any other endemic foci of filariasis in the U. S.¹¹ His results showed that only nine of the 1,470 surveyed individuals were positive for microfilaria in their blood, and these nine individuals had histories of having lived in endemic areas such as Cuba or Charleston. These results and other published studies from the same time period indicate that Charleston was the only documented endemic focus on the North American continent at that time. Dr. Francis's report and recommendations for prevention of filariasis as published in 1919 were immediately put into effect by the Charleston City Health Department.¹²

The city had undertaken the construction of a municipal water supply which was completed around 1903. However, many citizens resisted using water from this supply, complaining of "difficulty in getting proper laundering done and washing their hair." During construction of the municipal water supply, citizens complained loudly of the inconvenience and the "miasmas" thought to be released by the freshly turned earth.¹³ It might be interesting to note here, that a local surgeon sought to halt construction of the project due to the public hazards presented by the large amounts of freshly turned earth the construction would produce and filed suit against the City Health Department. The case was eventually settled out of court when the city agreed to spread large amounts of chloride of lime (calcium chloride, a commonly used disinfectant at that time), sprinkling the white powder over the freshly turned earth. As the project continued, the City Health Department's budget was strained by the necessity of buying such large amounts of disinfectant. The problem was alleviated by resourcefully substituting re-labeled bags of spoiled flour obtained from a local mill for the similar appearing disinfectant. No further complaints arose from the incident.¹⁴

The Charleston Board of Health, with Dr.

FILARIASIS

Leon Banov acting as city health officer, reviewed the work done by Dr. Johnson and Dr. Francis. Working in close cooperation with them, the department launched a detailed study of some of the positive filaria carriers. The study revealed that cases were more numerous in the northeastern portion of the city.¹⁵

The historical record seems to indicate that the concerted efforts of the U. S. Public Health Service and the intuitive investigative skills of Dr. F. B. Johnson helped Public Health Officials to better understand the epidemiological nature of the parasite and to disrupt its transmission cycle. The City Health Department, armed with the knowledge gleaned from these

studies, launched a "vigorous campaign" city-wide that required by law the eradication of any potential mosquito-breeding containers and actually sent workers from site to site, directing them to fill in the large numbers of cisterns, rain barrels and other water containers.¹⁶ The program was so successful that approximately six years later in 1926, when the Mexican government sent an official Public Health Office Delegation to study Charleston's filariasis situation, they were unable to discover a single case despite the attempt to follow up on the records of previously known cases and carriers (See Figure 1).¹⁷

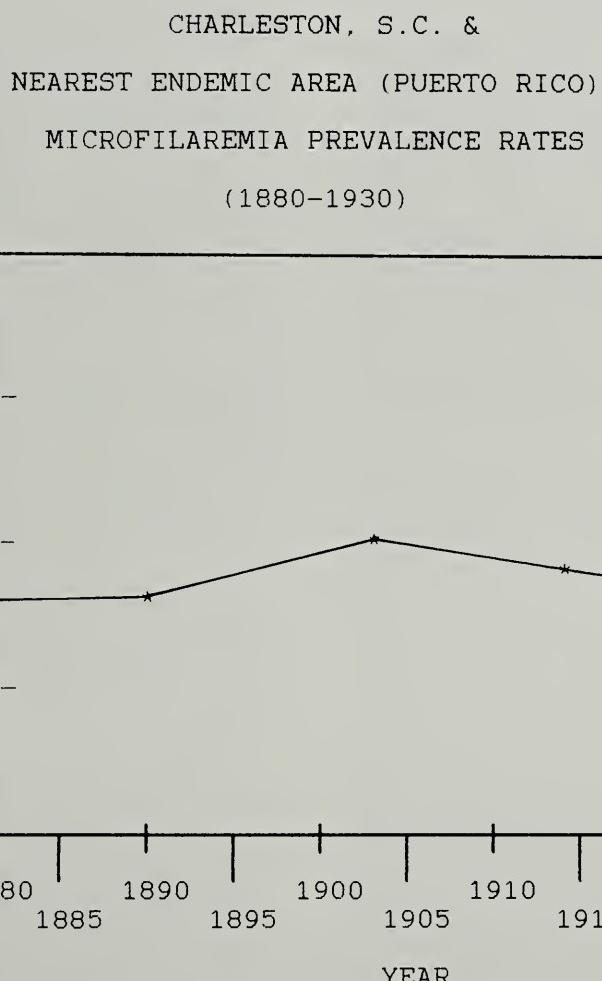


FIGURE 1. Prevalence rates of Charleston, S. C. and nearest endemic area (Puerto Rico), as reconstructed from two published local prevalence surveys (see Johnson and Ashford n.9) and a conservative estimate in 1890 drawn from cumulative documented cases and studies reported during that time period (1880-1900). The vertical dashed line indicates the enactment of the city's vector control program in 1919.

DISCUSSION

Apparently the establishment of Charleston as an endemic focus of filariasis was its geographic location and Charleston's role as a port with close trade ties with the West Indies. The islands of Barbados, Puerto Rico, Cuba and other islands of the West Indies were known to have been endemic for filariasis through the slave trade up until 1804 at which time slaves ceased to be imported. The presence of filariasis on the island of Barbados has been documented from about 1704¹⁸ and led to the euphemism of "Barbados leg" as a local slang term for the malady. Undoubtedly sometime around the 10-20 years following the cessation of the slave trade in 1804 the high concentrations of slaves introduced to the area served as a reservoir of infection for an area containing a large susceptible population and a number of capable and efficient vectors.

The carrier mosquito *Culex fatigans* was and is abundant in the Southeastern United States. The *Anopheles* and *Aedes* species of mosquitoes are also known vectors for *W. bancrofti* and are present in the low country of South Carolina currently. It should be pointed out, however, that the vector control program's primary focus was to reduce the numbers of potential vectors in contact with high concentrations of people, thereby reducing the risk of multiple bites from an infected vector to a susceptible host.

The historical record is far from complete regarding the eradication of filariasis from Charleston, South Carolina. Dr. Eli Chernin, a recognized authority on the historical aspects of filarial research, points out the lack of documentation of a mosquito control campaign in official city public health records from the years 1920-1926.¹⁹ Dr. Chernin goes on to conclude that "Circumstantial evidence links the developing sewerage and water systems with the disappearance of filariasis from Charleston." It is the position of the authors of this paper that the development of Charleston's water and sewerage system played a contributing role in the elimination of filariasis. An aggressive mosquito control campaign was waged and directed against all the vector-born diseases of the time (mainly malaria, filariasis and yellow fever) and ultimately resulted in the final elimination of filariasis from Charleston

and its environs.

This conclusion was reached upon consideration of additional historical records authored by Dr. Leon Banov in his memoirs, *As I Recall*, and reiterated in a personal letter by Dr. Banov to Dr. Paul C. Beaver of Tulane University in 1969. In this document, Dr. Beaver specifically requested information on the disappearance of filariasis from Charleston. Dr. Banov, who served as city health officer from around 1912, states that a mosquito control campaign was "immediately launched" upon review of Johnson's findings. Additional evidence for the existence of a mosquito control campaign that targeted filariasis is the presence of an epidemiological map in the historical files of Dr. Johnson and stored exclusively with filarial related materials. Unfortunately, although the map is indirectly referenced by Banov, it contains no date or internal indication of its use.

Dr. Johnson's work was published in 1915. Dr. Francis's work was published in 1919. During the interim time span (1918), a consulting visit was paid by Joseph A. LePrince, a respected sanitarian of the times. Ostensibly, the city of Charleston and U. S. Public Health Service's program aimed at anopheline malaria vector control, mentioned in the city records of 1918,²⁰ was expanded to include the elimination of filariasis. This would account for the lack of documentation of a program directed specifically towards filariasis in official public health records. It would appear unlikely that the elimination of filariasis was due exclusively to the establishment of permanent water and sewerage systems, although these systems played a contributing role. The records indicate a more aggressive campaign directed toward vector control was waged and won in a reasonably short period of time (six years).

Current research indicates that once reinfection is eliminated, even chronic disease can be reversible. Reports of individuals becoming amicrofilaremic in as short as three months time after moving from an endemic area have been recorded.²¹ These studies would corroborate the reports of the rapid disappearance of filariasis from Charleston as reported by Banov.

The role South Carolina's physicians played in the understanding and elimination of fil-

ariasis in Charleston serves as a lasting tribute to their diligence and thoroughness. The contributions of Dr. Johnson and Dr. Banov, in conjunction with the efforts of the U. S. Public Health Service's Dr. Francis, to the general welfare of the citizens of South Carolina as a whole has long since been accomplished, but can still be appreciated. □

ACKNOWLEDGMENT

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THE ANNUAL MEETING OF THE AMA

REPORT OF THE SCMA DELEGATION

JOHN C. HAWK, JR., M.D.*

Many persons not in the know must have wondered what was going on in Chicago (June 18-22, 1989) when they saw so many physicians wearing shiny buttons with a strange inscription: ET's in big letters, with (RATIONING) in smaller letters below, and over it all a red outer circle and an oblique slash, the international negative road signal, in this case meaning STOP OR HALT. The buttons certainly did not refer to the celebrated movie or to its lovable central character. Instead, they referred to the latest Cost Containment measure proposed in Congress, so-called Expenditure Targets. There is nothing lovable about Expenditure Targets for either patients or physicians. Almost certainly they will lead to Expenditure CAPS, which are essentially synonymous with Rationing.

At the time the House of Delegates was meeting, the U. S. House of Representatives Ways and Means Health Subcommittee, chaired by Rep. Fortney (Pete) Stark, was proposing its version of an Expenditure Target bill, which took into consideration some of the proposals from the Physician Payment Review Commission (PPRC). The House of Delegates was supplied with information as it developed, and an overall plan of action implemented. This included two direct telephone lines to Congress, for delegates to call their representatives about the matter, and the availability of copies of the prepared statements which had been made by the AMA to the subcommittee. We were also given copies of posters, which are similar to advertisements being placed in national magazines. One of these depicted an elderly woman, obviously in some distress, with the notation, "How do you tell a Medicare patient that she is an Expenditure Target?" By the time this report is printed, further action will probably have occurred. Some developments were reported in the AM News of June 23/30. Full and detailed reports of the House of Delegates meeting will be published in the two ensuing issues of the AM News and you are urged to read these carefully, to keep properly informed.

On the House floor on Wednesday, over an hour was expended in discussing the entire subject of Expenditure Targets, which included the Report from the Board of Trustees and four resolutions. Three of the resolutions were extracted for separate discussion, and a number of substitute resolutions proposed. Resolution 87 from Virginia, which resolved "that the AMA vigorously oppose the concept of Expenditure Targets in the Medicare program or any other action which would lead to the rationing of or reduce access to medical care," was adopted.

*30 Bee Street, Charleston, S. C. 29403.

Substitute Resolution 200 was also adopted, reaffirming the AMA's willingness to participate in efforts to control the cost of Medicare in a manner that preserves the quality and availability of health care to Medicare recipients. It further reaffirmed the AMA's position that the Medicare program should establish actuarially sound financing of benefits as stated in Board of Trustees Report MM (A-86) and further urged Congress to incorporate the following considerations when applying budgetary controls to Medicare, in place of Expenditure Targets:

A. Assure a high priority to health care for Medicare patients in relation to other programs when allocating federal funds.

B. Given Medicare's financial resources, develop a mechanism to channel these resources to those patients with greater financial need and to require a proportionately larger financial contribution by the more affluent toward their own health care, and finally reduce the cost of defensive medicine (approximately \$20 billion per year) caused by the present tort system.

OVERVIEW

The House considered an enormous amount of business, undoubtedly the greatest volume ever faced by the Delegates. By the third day, 435 (100%) of the 435 accredited delegates had been registered. These included delegates from two new specialty societies, which were accepted by the House: the American Society of Hematology and the Association of University Radiologists. The Society of Head and Neck Surgeons was not granted representation in the House of Delegates. Of the 435 total delegates, 347 represent state associations.

ADDRESSES TO THE HOUSE

Dr. Louis W. Sullivan, newly appointed Secretary of Health and Human Services, addressed the House at the opening session on June 18. Dr. Sullivan has been an active member of the Medical Association of Georgia. He started out by saying, "I am here to tell you that Marcus Welby is dead. The long honeymoon of the American public and the kindly physician is over." He pointed out a number of the problems in this country with the common thread of poverty running through many related to health. He stated that the Administration strongly supports a three-part framework for physician payment reform, including a resource based fee schedule, an expenditure target for Medicare physician services, and beneficiary protections. He outlined part of the agenda of the Administration. He challenged the AMA to participate in the "reformation of the American health care system as we know it today." Certainly much that he said was not encouraging to physicians, but at least he does seem to understand the problems of medicine.

Dr. James E. Davis, outgoing president, gave a splendid address entitled, "A Symphony of Service to American Medicine." It will undoubtedly be published in JAMA and should be read by all.

Dr. Alan R. Nelson, in his Inaugural Address as the 144th president of the AMA, took as his title, "Humanism and the Art of Medicine: Our Commitment to Care." He spoke of four aspects of the art of medicine, including (1) humanism with its values of compassion and understanding, (2) diligence and faithfulness, (3) altruism and (4) ethical behavior. He ended with the following: "The art of medicine is that quality makes the doctor more than just a scientist. It is that quality that is cherished by those who serve. It provides the bond between the patient and physician that will make medicine a career of satisfaction and fulfillment as we bring to bear, for our patients, the wonders of science now and through succeeding generations of men and women proud to be called 'doctor'."

SCMA RESOLUTIONS

The SCMA delegation introduced two important resolutions: Resolution 97 asked that the AMA request immediate action by the HCFA, and if necessary by Congress, to withdraw the requirement for inclusion of the referring physician's identification number on Medicare claims of radiologists, pathologists, independent laboratories and other physicians when a patient was referred by another physician for consultation or treatment. As all physicians are aware, in South Carolina this identification number must be the social security number of the referring physician, and obtaining this may entail considerable difficulty and delay. The Reference Committee recommended that Resolution 97 be referred to the Board of Trustees for action, which would have given the Board the option of deciding what to do with it. Dr. Dan Brake, who as president of the association was sitting as an alternate delegate, spoke eloquently about the problems involved. Immediately thereafter, acting upon a motion made by the Pennsylvania Delegation, the House voted to adopt the resolution, which, of course, was a much stronger action.

Resolution 96 pointed out that Section 1801 of PL 89-97, the original Medicare Law, 1965, has never been repealed or revoked, and that it states nothing in this title should be construed to authorize any Federal officer or employee to exercise any supervision or control over the practice of medicine or the manner in which medical services are provided...." Our resolution called upon the AMA to examine the subsequent acts of Congress and the regulations promulgated by governmental agencies under these laws which impose onerous burdens on physicians in their care of Medicare patients, to determine whether such acts or regulations are in violation of Section 1801, and furthermore to take whatever legal action is feasible to prevent implementation and/or enforcement of such laws or regulations. The Reference Committee recommended referral to the Board for action. We requested that this resolution be adopted rather than

referred, but after EVP Dr. James Sammons spoke of the Board's concern about the number of laws that would have to be studied, and the potential costs, the House voted to accept the Reference Committee's recommendation for referral to the Board of Trustees for action. We will, of course, receive a report as to what is done.

CANADIAN HEALTH CARE SYSTEM

Responding to Resolution 124, A-88, the Board presented Report V which gave a detailed evaluation of the Canadian Health Care System and outlined why it is not suitable for application in the United States. This report was adopted by the House.

In addition, the House adopted amended Resolution 127 stating, "Resolved, that the AMA recognize the Canadian Compulsory Health System to be a system of socialized medicine managed by an ever enlarging and more expensive bureaucracy, financed by ever increasing taxation and featuring rationing, shortages, health care waiting lists and an absence of private sector alternatives, and further be it Resolved, that the AMA document and publish the truth about the deficiencies and problems that characterize Canadian health care."

PHYSICIAN PAYMENT UNDER MEDICARE-RBRVS

Report NN of the Board of Trustees, Physician Payment Under Medicare: Resource Based Relative Value Scale for Physician Services, and Report BBB of the Board, Development and Implementation of a new Medicare Payment System, were considered together with two resolutions. This subject naturally evoked a great deal of discussion and debate. The final recommendations are of such sufficient importance that I will quote them completely:

1. That the AMA reaffirm its support for development and implementation of a Medicare indemnity payment schedule according to the policies established in Board of Trustees Report AA (I-88);
2. That the association support reasonable attempts to remedy geographic Medicare physician payment inequities that do not substantially interfere with the AMA's general support for an RBRVS-based indemnity payment system;
3. That the association continue to work to ensure that implementation of an RBRVS-based Medicare payment schedule occurs upon the expansion, correction and refinement of the Harvard RBRVS study and data as called for in Board Report AA (I-88), and upon AMA review and approval of the relevant proposed enabling legislation;
4. That the association oppose any effort to link the acceptance of an RBRVS with any proposal that is counter to AMA

policy, such as expenditure targets or mandatory assignment;

5. That the AMA continue to oppose the arbitrary and unwarranted use of so-called "overpriced procedure" reductions as part of the fiscal year 1990 budgetary process, the use of data generated by the yet-to-be-completed Harvard RBRVS study to determine such payment cuts, and especially, the use for this purpose of RBRVS data for specialties whose RBRVS results are being restudied as part of Phase II of the RBRVS study;

6. That in the event Congress decides to act on physician payment reform in the interval between meetings of the House of Delegates, the House believes that the Board of Trustees will exercise its responsibilities to act with prudence and leadership in seeking the best possible result for medicine, consistent with principles embodied in Board Report AA (A-88);

7. If the federal government chooses to reduce reimbursement for certain "targeted procedures," the AMA lobby strongly to limit such reductions to geographic areas where current reimbursement exceeds the mean national reimbursement for that procedure.

Also adopted was the final resolve from Resolution 223 from the Hospital Medical Staff Section which states: "Resolved, that the AMA develop and aggressively seek Congressional sponsorship and support for federal legislation that will allow AMA and the state medical associations, on behalf of physicians, to negotiate payment schedules on federal and state policies respectively, impacting on physician reimbursement.

COVERING THE UNINSURED

In Report JJ, the Board gave a detailed report about the problem of providing medical care to the uninsured. Here again there was much discussion, and finally passage of two substitute or amended resolutions as follows:

1. That the AMA endorse the concept of a phased in requirement that employers (limited initially to large employers) provide health insurance coverage within the private sector for all full-time employees, with coverage expanding over several years and with a program of diminishing tax credits or other incentives to avoid adverse effects on employers.

2. That the AMA continue to study all approaches to providing health services for the uninsured and work with business groups to develop approaches that are best suited to the needs of small employers.

PARTICIPATING/NON-PARTICIPATING PHYSICIANS

The House passed a substitute resolution that stated, "Resolved, that the American Medical Association seek to remove, on the

explanation of Medicare benefits sent to the patients of Medicare non-participating physicians, all statements regarding the participation status of the physician and the alleged benefits associated with the assignment of claims from seeing a participating physician."

In addition, a resolution from the Hospital Medical Staff Section was adopted which states, "Resolved, that the American Medical Association seek legislation which requires all third party payors including Medicare to explain to their potential and current beneficiaries, in clear and simple terms, those medical services and procedures which they (third party payors) will and will not cover; and further Resolved, that the AMA seek legislation that requires all third party payors including Medicare to provide an easily understandable payment schedule to their potential and current beneficiaries; and be it further, Resolved, that the AMA vigorously resist any attempt to directly, indirectly or surreptitiously shift the responsibility for explanation of policy benefits to physicians and finally Resolved, that the American Medical Association petition Congress, the Health Care Financing Administration (HCFA) and Part B carriers to remove all factors that discriminate against non-participating physicians in Medicare."

PHYSICIANS' INVOLVEMENT IN COMMERCIAL VENTURES

Report ZZ from the Board of Trustees gave a detailed analysis of the current status of legislation, particularly that promulgated by Representative Fortney (Pete) Stark in February 1989, relating to prohibitions against referral of patients by physicians to facilities in which they have a financial interest. The so called "safe harbors" for certain financial arrangements were outlined, together with recommendations for advisory opinions by the Office of Inspector General, and an approach to a transition period while any new legislative standards are being developed. This report was adopted in lieu of three resolutions considered also by the Reference Committee.

PRO AND QUALITY CARE ISSUES

A total of 21 resolutions dealt with various aspects of the PROs, quality care issues, practice parameters, etc., and were considered in detail in Reference Committee G, together with three reports from the Council on Medical Service and three reports from the Board of Trustees. The recommendations adopted are complex but include that the AMA seek withdrawal of the proposed model letter notifying the beneficiary of quality of care denials. Also, if adequate due process considerations are not provided in any final Substandard Quality Care regulations, that the AMA use all available options, including legal action, to prevent further implementation until said considerations are addressed, and furthermore that quality care decisions be made by identifiable PRO physician reviewers based on their clinical experience and judgment rather than reliance on mandated written

criteria. This is a constantly changing field and will require careful attention by all physicians to actions and events reported in various AMA publications.

OTHER IMPORTANT ITEMS

Since it is obviously impossible to cover all of the items discussed by the House of Delegates, all physicians are urged to peruse carefully the various articles in the AM News reporting on the Annual Meeting. I will mention briefly a few of the actions taken:

* Adopted a resolution that the AMA, through its coalition with business and industry and its state federations, give priority attention to a partial and rational deregulation of the insurance industry in order to expand access to affordable health care coverage, and further that the AMA reaffirm its commitment to private health care insurance using pluralistic, free enterprise mechanisms rather than government mandated and controlled programs.

* Adopted a related resolution that the AMA vigorously pursue the passage of existing AMA draft legislation that will develop mechanisms and guidelines by which states that develop programs to cover health care for the uninsured and underinsured will be able to gain participation by ERISA exemption in the funding for their plans.

* Referred for action a resolution that the AMA support alternatives to mandated government control plans, such as repeal and removal of many costly state government health insurance regulations, giving individual tax reductions for health insurance premiums and restoring full deductibility of Individual Retirement Accounts.

* Referred for action a resolution that the AMA vigorously oppose any federal legislation that would mandate Medicare assignment; and at the same time continue to stress our belief in checking the patient's financial ability to pay.

* Adopted a resolution that the AMA advocate and support the restoration of the deductibility of Individual Retirement Account (IRA) contributions of up to \$2,000 each year for all workers, and further that the AMA support legislation which would expand the \$2,000 deduction for spouses and in addition allow workers to use their IRA funds to purchase health and long term care insurance without tax or other penalty.

* Reaffirmed its established policy regarding a smoke free society, with the addition of advocating that all American hospitals ban tobacco use by January 1, 1991, that physicians prohibit smoking and use of tobacco products in their offices, and that the AMA work towards legislation and policies promoting a ban on smoking and use of tobacco products in hospitals, health

care institutions and educational institutions.

* Adopted a resolution asking appropriate AMA efforts to cause governmental agencies and Medicare insurance carriers to discontinue the use of the term, "medically necessary services," and instead use the more appropriate and accurate term, "non-covered medical services," and convey this information also to members of Congress.

MEMBERSHIP AND DUES

In Report P, the Board of Trustees gave considerable information about the impact of the AMA Direct Membership Option (DMO), adopted in 1981, on total AMA membership and also on state and county medical society membership. The data demonstrated that there has been no adverse impact on state membership from the DMO. The Board also reported on actions taken to increase student membership.

In regard to dues, the Board recommended that no change be made in dues level for 1990. It should be noted that if membership recruitment at the county, state and AMA levels could be increased appropriately, it is likely that further dues increases in the foreseeable future would not be necessary at any level of organized medicine. The obvious problem is that there are many physicians who still do not belong, and yet reap many of the benefits of these organizations, especially in the political arena and relative to third party payors. Prior to this meeting I received several phone calls and other direct communications from physicians asking me to push for implementation of the RBRVS. Several of these were from persons who are not members of the AMA. I pointed out to them that if they and thousands of others would join the AMA, so as to give the AMA a larger constituency, the AMA could be more much effective in its efforts in protecting the rights of physicians and patients.

SCMA DELEGATION

The SCMA delegation to the AMA included Randy Smoak, Don Kilgore, and John Hawk, delegates; Gavin Appleby, Charlie Duncan and Walt Roberts, alternate delegates; Dan Brake, president; Chris Hawk, chairman of the board; Roger Gaddy, Steven Hulecki, delegate and alternate delegate to the Young Physicians Section; Mark Milburn, Melissa McClure and Tom Phillipakis, medical students; Bill Mahon and Barbara Whittaker, staff. The delegation worked diligently and we hope effectively.

We again express our appreciation for the opportunity to represent the SCMA. We invite all South Carolina physicians to join both the SCM and AMA, to give us their input, and to join with us at any future House of Delegates' meetings.

Editorial

TICKS, TETRACYCLINE, AND BACKYARD TERRORISM

In 1873, a settler to the Bitterroot Valley of western Montana died of an unusual case of "black measles." In 1972, some citizens of Old Lyme, Connecticut, complained that their joints hurt. It now seems ironic that our two most important tick borne diseases—Rocky Mountain spotted fever (RMSF) and Lyme borreliosis—took their names from such historical accidents. We have known for years that RMSF occurs mainly in the Southeast, not the Rockies. Now, front-cover news stories tell us that Lyme disease has appeared in all but seven of the 50 states.¹ Still, why worry much in South Carolina? According to official DHEC reports, only 23 cases of RMSF and 10 of Lyme disease occurred within our borders during all of 1988.

In this issue of *The Journal*, Stanley Schuman and Samuel Caldwell dispel any basis for complacency. These investigators from the Agromedicine Program at MUSC surveyed 2,346 primary care physicians (a 57% response rate) and found 344 cases of RMSF and 90 of Lyme disease during the same 12-month period. The implications: (1) tick borne diseases are in fact a major public health problem in the Palmetto State; and (2) there is widespread under-reporting of reportable diseases.

If the past is truly prologue, then we should also heed the historical paper in this issue by Wade Reynolds and Francisco Sy. Earlier in this century, it was widely known that the Charleston area contained a focus of filariasis (elephantiasis). However, the full extent of the problem was not clearly defined until Dr. Francis B. Johnson of what is now MUSC (then the Medical College of South Carolina) polled 50 local physicians with this question: "What is the total number of cases of filariasis you have seen during your entire practice?" Johnson determined that filariasis was not merely *endemic* in the Charleston area; it was *hyperendemic*.

These data prompted public health officials such as Dr. Leon Banov to spring into action. Filariasis became a memory.

Future historians are likely to regard the new survey of Schuman and Caldwell, like the old one by Johnson, as something of a turning point. However, one caveat about such questionnaire surveys is the problem of case verification. How can we be sure that most of the patients actually had RMSF or Lyme disease, especially in today's era of widespread antibiotic therapy for presumptive diagnoses?

RMSF and Lyme disease are radically different diseases—one acute and life-threatening, the other chronic and disabling; one caused by a rickettsial organism, the other by a spirochete. From the perspective of diagnosis, however, they share four features:

(1) Precise diagnosis by demonstration of the organism is technically possible but is available in only a few laboratories.

(2) Strong presumptive diagnosis depends upon the presence of a near-diagnostic rash, but the disease can occur without the rash. The red macules of RMSF, beginning on the extremities and spreading centripetally, never appear in up to 16% of cases. The expanding, ring-like plaque with central clearing (erythema chronicum) of Lyme disease never appears in up to 25% of victims—and possibly a greater percentage, since this marker has been used to a large extent for case-definition.²

(3) Serologic tests are available, but are fraught with problems of interpretation. In both diseases, sequential specimens may be necessary; in neither disease does there seem to be clear-cut agreement about the true sensitivity and specificity of the available methods.

(4) Fear of missing treatable disease, combined with growing public awareness,

places strong pressure on physicians to treat on the basis of presumptive diagnoses. Let us briefly review the latter problem.

In the case of RMSF, the pressure to prescribe tetracycline (or doxycycline or chloramphenicol) arises from the 20 to 30 percent case-fatality rate without treatment. Two deaths occurred in South Carolina during 1988. Today, it has been noted, "a death from Rocky Mountain spotted fever is likely to leave the legacy of a lawsuit."³ Unfortunately, some deaths will occur despite the best management on account of delays in seeking care and on account of what statisticians call "outliers" (that is, atypical presentations defying our algorithmic approaches to clinical problems). The constellation of fever, rash, severe headache, and history of tick exposure makes a tight case for early treatment. However, even in highly endemic areas it has been shown that only 41% of patients were given a correct diagnosis on the first visit.⁴ The problem becomes how to define when to treat, and when to observe expectantly, in less-than-classic cases. One might err toward treatment for older patients and for those with "the worst headache I've ever had." For other patients—those with seemingly benign "viral illness" during all but the winter months—one should strongly encourage a return office visit in the event of persistent fever (longer than three days) or new symptoms. The problem could, of course, be something other than RMSF—such as endocarditis.

In the case of Lyme disease, the pressure to treat arises mainly from the late complications. Like syphilis, Lyme disease is a three-stage spirochetal disease capable of masquerading under many guises (Table).⁵ Tetracycline is currently the drug of choice for the primary (stage I) manifestations. Patients receiving tetracycline (and to a lesser extent, patients treated with penicillin) are less likely to develop late complications. Treatment of the late complications of Lyme disease (stages II and III), many of which appear to be immunologically-mediated,⁶ is problematic. Mounting evidence suggests that ceftriaxone (Rocephin), two grams daily for a prolonged course, is more effective than high-dose penicillin G.⁷ Ceftriaxone must be given parenterally and is quite expensive—gram-for-gram,

a caviar even among third-generation cephalosporins. When, therefore, should ceftriaxone be prescribed for symptoms that *might* be Lyme disease—but without a clear history of erythema chronicum? Again, such therapy might mask the true diagnosis.

All around the country, "Lyme support groups" are springing up to discuss the protean and debilitating manifestations of this still-emerging disease concept. Lyme disease now joins the Epstein-Barr virus as a possible but difficult-to-prove cause of the chronic fatigue

TABLE The Three Stages of Lyme Disease

STAGE I (following tick bite which is often unrecognized, and lasting a median of four weeks):

CUTANEOUS: Erythema migrans—a unique skin lesion consisting of expanding, ring-like plaque with a red border and a pale-indurated center (can be single or multiple); a variety of less-specific rashes also occur.

FLU-LIKE SYNDROME: Variable presence of low-grade fever, chills, malaise, fatigue, headache, photophobia, dysesthesias, stiff neck, migratory arthralgias, and other symptoms.

STAGE II (after a latent period of well-being following Stage I):

NERVOUS SYSTEM (15%): Headache with evidence of meningeal irritation; neuritis (often with unilateral or bilateral Bell's palsy); subtle manifestations of encephalitis such as sleep disturbance and poor concentration; a wide spectrum of other reported problems including mononeuritis multiplex, transverse myelitis, and pseudotumor cerebri.

CARDIAC (8%); heart block and other rhythm disturbances; myocarditis, syncope, dizziness, dyspnea, substernal pain.

EYE: Conjunctivitis; occasionally panophthalmitis

STAGE III (weeks, months, or years later):

ARTHRITIS (60%): recurrent monoarticular or asymmetric pauciarticular arthritis mainly affecting large joints; less often a seronegative, rheumatoid-like arthritis affecting small and large joints; predilection for the knees; progression to chronic arthritis in about 10% of patients.

CENTRAL NERVOUS SYSTEM: multiple sclerosis-like demyelinating illness; psychiatric disorders (primarily in children); episodic, incapacitating fatigue syndrome.

syndrome. Patients are demanding "the test." Unfortunately, serologic testing for Lyme disease reminds us of the cruel lesson of Bayes' theorem: when the prevalence of a disease in a population is quite low, then a positive screening test result for that disease is likely to be false-positive rather than true-positive. Yet because it is difficult to say with certainty that the test is false-positive, the patient is likely to be subjected to a prolonged, expensive course of ceftriaxone.⁸ On the other hand, even a negative test result may not offer the patient sufficient reassurance. Cases have been described in which antibodies never developed despite specific T-cell blastogenic responses to *Borrelia burgdorferi* (the causative spirochete).⁹ How can we say that a patient does *not* have Lyme disease?

Although we can anticipate the development of still-better tests for both diseases, the ultimate solution to these "doctors' dilemmas" would be eradication of the pesty-organisms and/or their tick vectors. Filariasis, like malaria and yellow fever before it, was eradicated by focusing on the mosquito vector. Can we do the same with the ubiquitous tick?

The tick. Its mouthparts, as disclosed by the scanning electron microscope, form an awesome weapon worthy of any terrorist, replete with barbs ideally designed for attachment to a mammalian passer-by. It is fortunate that only a few of the 850-odd species of ticks transmit disease to humans, and that most attachments even among these species are inconsequential. It is unfortunate, however, that the *Ixodes* ticks which transmit Lyme disease are small and difficult to recognize on one's person. The key vector is not the adult tick but rather the nymph, which is almost imperceptible until engorged by its blood meal. By then, it's too late. In the New England states, some persons now hesitate to venture into their own backyards for fear of these unseen enemies. Might the same soon hold for South Carolina?

For now, it seems safest to assume that the data presented by Schuman and Caldwell provide an accurate or even under-stated portrait of tick borne diseases in South Carolina. We should work to improve our familiarity with these diseases, while advising patients who ask what constitutes proper clothing for walking through the woods.¹⁰ We should encourage the kind of "teamwork among clinicians, entomologists, and veterinarians" recommended by these authors. Many more studies are needed, but at least we have accomplished that crucial first step: acknowledging that we *do* have a problem. The investigators at MUSC's Agromedicine Program deserve our gratitude for undertaking their important study.

—CSB

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ON THE COVER:
DAVIS FURMAN, M.D., 1858-1931
PRESIDENT, SCMA, 1905-06

In 1905, a year after its reorganization, the SCMA met in Greenville, S.C., and Dr. Davis Furman of that city was elected President. Dr. Furman had received his medical degree from the University of Maryland and practiced in several different locations before coming to Greenville. Here he was a popular physician with a large practice. "He was not only the ideal family doctor, but he was the perfect family friend. He may have been called in as a physician, but before he left, somehow you had the feeling that you were richer by another friend."

Dr. Furman's interests ranged beyond his private practice. He was active in public health in its early years, serving as Chairman of the Greenville City Board of Health from 1911 to 1925 and taking an active role in establishing the County Board. He later served on the State Board of Health. His leadership was instrumental in securing a safe and adequate water supply for his city, and he was a widely recognized authority on the diagnosis and treatment of pellagra.

During his term as President, the SCMA established and published the first issue of this *Journal*. Dr. Furman's contribution to the issue was "Cerebral Spinal Meningitis and Hydrocephalus."

At his death, *The Journal* wrote: "He served the state medical association and organized medicine in general with marked enthusiasm, and consistent loyalty. It was an inspiration to the younger members of the profession to note the presence of Dr. Furman wherever there was a get together of medical men in his vicinity although he was well beyond three score years and ten. Dr. Furman was a profound student of medicine, contributing important articles to the literature throughout his long career. His contributions to public health and his official connections with many health organizations were notable. He was a valued member of the State Board of Health of South Carolina at the time of his death. He will be sorely missed by a multitude of doctors and other friends."

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LETTER TO THE EDITOR

To The Editor:

Being a retired Chairman of Community Health at Marquette University and being a retired Senior Citizen for the last three years, I became more personally involved with the older generation, non-ambulatory, and home-bound patients in nursing homes and homes where the elderly live.

I strongly feel there is a definite need to try to reach this segment of the population and try to uplift their dental health status. I am asking your opinion for the need and use of involving the physicians in their role in geriodontics. I suggest having a Guest Editorial for your editorial page in the *Journal of South Carolina Medical Association*.

I am enclosing an adroit and thoughtful editorial on *The Role of The Physicians in Geriodontics*, at least, I feel it is. I seriously believe this essay can be a starting point; in that it can make the physicians cognizant and can be a starting point in trying to uplift the dental health status of this segment of the population and help lessen the serious problem they have now. The Dental Association is trying to help this segment of the population, but I always found the physicians appear to carry more weight and respect and when they speak the patients are more apt to listen and follow their suggestions.

THE PHYSICIAN'S ROLE IN GERIODONTICS

Retirement in health, honor, and dignity are the main circumstances that a person who has reached his "golden years" wants to enjoy. The majority of these persons have devoted five-plus decades of their lives to performing, to the best of their ability, some task that in some way affects all of our lives, directly or indirectly, and made this a better world in which to live. As members of the health profession, what do we owe these people?

The number of elderly people in our population is growing rapidly, and the physicians and dentists are noticing that many of them have a better understanding of total health, including oral health, than their predecessors. A possible

reason is that in their younger days their teachers, their physicians, their dentists, and the media of communication taught them how to preserve their teeth. Before long we may have a generation of older individuals who drank fluoridated water in their formative years, and they may have teeth with lifetime quality. With proper care and education, our older patients should not be candidates for complete dentures. However, their teeth, oral soft tissues, jawbones, the muscles and skin of the face, all undergo aging changes closely related to those which affect the rest of the body and the mind.

Next to the dentists and dental hygienists, the physicians are asked more questions on oral health than anyone else by these geriodontic patients, who are "special patients" only because they find it hard or impossible to get to see a dentist. Unless the physician learns to evaluate the elderly person who brings his oral problem along with his other problems, his reputation as the physician of total health care may be seriously challenged. It is not suggested that the physician render dental services to these elderly patients, but it is the physician's professional responsibility to see to it that he is referred to a dentist, or get a dentist to come to his patient. If one of the physician's patients has a medical disease for which he needs consultation he does not hesitate to call in a medical specialist to examine his patient. Is it not the professional responsibility of the physician, who is the key member of the health team, to call in a dentist or refer his patient to one, especially the nonambulatory or home-bound patient?

The most prevalent diseases known to man are oral diseases. Almost every person has had, has, or will have dental problems. Yet oral problems are usually not contagious or deadly. The undramatic nature of oral diseases undoubtedly contributes to the astonishing proclivity of the physician to overlook these conditions. The nondental public was conditioned to believe that edentulousness was an unavoidable concomitant of advanced years. Many people were convinced that dentistry for the elderly was limited to "grinding down their false teeth." But older individuals are no longer willing to sacrifice their teeth. Dentistry is more than plugging holes in teeth, bridging

vacant spaces between teeth, or putting "plates" in empty mouths. By restoring and maintaining the oral cavity to the best condition for each person, we give these elderly patients a feeling that "someone cares," improve their health and their esthetics and give them a better outlook on life.

The mouth is regarded as an integral part of the body entity because many oral diseases or disorders are known to be correlated with a systemic morbidity. The condition in the mouth may be the cause or the effect of an abnormality in the health of the body or of the mind. The mouth is truly the "mirror of the body" in that many symptoms or diagnostic signs are first observed in the oral cavity. It is the most accessible and acceptable orifice that a physician can look into, and see further in-

side, without instruments. An oral cancer examination is within the realm of the physician.

The physician may not know of a dentist to whom he can refer his patient. Dentists' names can be obtained the local dental society, the local health department, or the nearest dental school. The state dental society usually has a list of dentists throughout the state who specialize in geriodontic patients.

The greatest sin of maturity is losing one's zest for life. Are the physicians contributing to this loss by not treating the total health of their patients even if it is only by referring them to the proper discipline?

FRED R. SALERNO, D.M.D., B.S., M.P.H.
114 Commons Way
Goose Creek, S. C. 29445

This space contributed as a public service.





REGIONALIZED PERINATAL CARE IN SOUTH CAROLINA*

THOMAS C. HULSEY, MSPH, Sc.D.**

HENRY C. HEINS, M.D.

TERRY A. MARSHALL, M.D.

MARY LOU MARTIN, MSN, R.N.

TOM W. McGEE, M.A.T.

MARIE C. MEGLEN, MS, C.N.M.

SUSIE F. PEDEN, BSN, M.H.S.A.

WILLIAM B. PITTA RD, M.D.

DAVID H. WELLS, M.D.

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* From the Medical University of South Carolina, Charleston (Drs. Hulsey, Heins, and Pittard); Self Memorial Hospital, Greenwood (Dr. Marshall and Ms. Peden); McLeod Regional Medical Center, Florence (Ms. Martin); The Office of Primary Care, South Carolina Department of Health and Environmental Control, Columbia (Mr. McGee); The Office of Maternal and Child Health, South Carolina Department of Health and Environmental Control, Columbia (Ms. Meglen); Greenville Hospital System, Greenville (Ms. Peden and Dr. Wells); and Spartanburg Regional Medical Center, Spartanburg (Ms. Peden).

** Address correspondence to Dr. Hulsey at the Children's Hospital, Department of Pediatrics, Medical University of South Carolina, 171 Ashley Avenue, Charleston, S. C. 29425-3313.

I. THE DEVELOPMENT OF REGIONALIZED PERINATAL CARE.

The development of regionalized perinatal care can best be traced from early national efforts in the mid-1920s, when health care professionals sharpened their focus on the specialized needs of the preterm infant and began to develop a distinct approach to care.^{1, 2, 3} The refinement and acceptance of this health care approach was fostered by the work of such notable pediatricians as Dr. Julius Hess of Chicago. Specialized centers for the care of the premature neonate began to appear. The concept in Chicago gained increasing support from the medical community, and over the next 25 years developed into a program of care based on physiologic principles including thermal stability, nutrition, and specialized nursing support.

During the 1960s the use of intensive care for premature newborns continued to gain support. Many hospitals (primarily university affiliated teaching institutions) established intensive care programs with aggressive medical care of high risk newborns. The growth of these facilities was largely unregulated and frequently resulted in an inefficient distribution of resources. With few exceptions, the early increase of newborn intensive care units was not carefully planned. Personnel were frequently inadequately trained. Knowledge was deficient at some hospitals and technological applications were inconsistent in others. In some areas there was a lack of intensive care while in others there were costly duplications.

Several professional groups, concerned about the rapid growth of neonatal intensive care units (NICU), began to issue policy statements that supported the concept of care based on patient risk and included the aspect of efficient use of community resources. Most notably were the efforts of the American Academy of Pediatrics, the American College of Obstetricians and Gynecologists, and the American Medical Association.

In 1971, the American Medical Association issued the statement: "Application of recent advances in scientific knowledge and skills in the intensive care management of high risk pregnant women and high risk newborn infants will result in reduction of present mater-

nal and infant mortality. A major contribution to such a program is the development of a centralized community hospital-based newborn intensive care unit. Concentration of high risk infant care programs in a hospital specifically staffed and equipped to provide optimal care is a proven life-saving mechanism for infants at risk."⁴

In the sixth edition of the *Standards and Recommendations for Hospital Care of Newborn Infants*, the American Academy of Pediatrics, concerned about the lack of standardization of care, gave detailed recommendations for the level of services an institution provided and emphasized the need to make the most skilled, intensive care available to the mothers and infants at highest risk.⁵

Nevertheless, a rather haphazard growth of NICUs continued, and in 1976, representatives of the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists were drawn together on a March of Dimes Committee for Perinatal Health to establish guidelines for the future growth and use of NICU facilities. The resulting publication, *Toward Improving the Outcome of Pregnancy*, defined resources essential for the provision of specific support services. It is this document that first described the concept of regionalized perinatal care. "Regionalization implies the development, within a geographic area, of a coordinated, cooperative system of maternal and perinatal health care in which, by mutual agreement between hospitals and physicians and based upon population needs, the degree of complexity of maternal and perinatal health care each hospital is capable of providing is identified so as to accomplish the following objectives: (1) quality care to all pregnant women and newborns, (2) maximal utilization of highly trained perinatal personnel and intensive care facilities, and (3) assurances of reasonable cost effectiveness."⁴

The ACOG Committee on Obstetrics: Maternal and Fetal Medicine and the AAP Committee on Fetus and Newborn published the *Guidelines for Perinatal Care* in 1983, which identified hospital level designation, physical facilities, staffing needs, and introduced the

concept of systems development. These guidelines provide the following framework for regional programs. "Regional delivery of perinatal health care is a systems approach in which program components in a geographic area are defined and coordinated. Successful systems meet local needs and support individual physician-patient relationships. They emphasize communication and education, consultation and professional competence in the utilization of services according to patient needs, and cost-effective services, including consolidation when indicated."⁶

The important concept is that regional perinatal care is a complex coordination of many independent programs and certainly much more than the existence of an array of intensive care nurseries. Service, education, patient transport, follow-up, and research are required components and must be balanced to facilitate a continuation of improvement in care through expansion of knowledge and skills, proper allocation of resources, and advancement and dissemination of prevention and treatment methodologies. Involvement of obstetrical and neonatal services, as well as local physicians and public health departments into a system of united care is a requirement for success.

The long term goals of a regional system include (1) the reduction of maternal, fetal, and neonatal mortality and morbidity to the lowest attainable levels, and (2) efficient utilization of available resources, balanced with patient needs.

For South Carolina, it was perhaps the 1972 survey of hospitals with maternity services which provided the initial groundwork for regionalization. Funded by the March of Dimes, this survey examined the relationship between number of hospital deliveries and perinatal mortality, efficiency of resource use, and quality of service delivery. Its purpose was "to promote emergence of statewide standards of practice of perinatal care and improve utilization of resources."⁷

The first formal efforts at structuring regionalized perinatal care in South Carolina began around 1973. At that time, a group of health care professionals developed guidelines based on the results of the 1972 survey. These guidelines served as a beginning for the develop-

ment of a standard approach to resources and care. In 1974, a state document, *South Carolina Regionalization of Perinatal Health Care*, outlined the broad goals and cooperative agreements required for a successful implementation.⁷ This original concept was also introduced in *The Journal of The South Carolina Medical Association*.⁸ These directives included: (1) the regionalization concept, delineating various levels of care; (2) a plan for early identification of high risk pregnancies; (3) a statement of need for a well-developed transportation system for mothers and infants; (4) an emphasis on the need for better perinatal education of professional personnel and the public; (5) a call for better hospital staffing; and, (6) a plea for financial support of perinatal health care services on a statewide basis.

This initial plan designated three state perinatal regions and their respective perinatal centers. The Medical University of South Carolina in Charleston was responsible for 16 primarily coastal and buffer counties, Richland Memorial Hospital in Columbia was responsible for 17 midlands counties, and the Greenville Hospital System in Greenville was responsible for 13 Piedmont and mountain counties.

The Department of Health and Environmental Control (DHEC), through the Maternal and Child Health Bureau's High Risk Perinatal Program, implemented its first program for regionalized care in selected areas of the state in 1974.⁹ This pilot program provided financial support for prenatal care and delivery of high risk patients, as well as support for nurses, aides, social workers, nutritionists, and educators to assure delivery of comprehensive health care services.

DHEC expanded this program statewide the following year. These original efforts were primarily directed toward two activities. The first was payment for high risk services and the second was the designation of levels for hospitals (I, II, or III) based on capability and patient risk status.

There were other significant contributors to the initial development of perinatal health in South Carolina. One of the principal groups that helped establish regional perinatal care was the March of Dimes. Their initial efforts were often directed toward equipment pur-

REGIONALIZED PERINATAL CARE

chases for new neonatal intensive care units and assistance in staff education. The commitment of the March of Dimes to perinatal health and professional education continued with further assistance in research, demonstration projects, support of systems development, and support of the South Carolina Perinatal Association.

In 1979, the original 1974 plan was revised and updated. The South Carolina Perinatal Association's multidisciplinary Perinatal Advisory Committee (PAC) subdivided into four regional perinatal advisory committees (based on the four existing health system agency [HSA] designations) and each assessed the perinatal health status of its region of the state. This assessment identified specific problems and potential solutions for improving the respective region's perinatal health status and the provision for perinatal health care. As a result, the *Guidelines for Achieving Perinatal Health in South Carolina* were written based on the new information and directives from other health organizations (State Health Plan and the National Discipline Standards of ACOG, AAP, APHA, ACNM, NAACOG, ANA, etc.).¹⁰ It was at this same time that perinatal regionalization efforts were gaining rapid support nationally, resulting in the first printing of the document, *Toward Improving the Outcome of Pregnancy* in 1976.

There were several notable changes from the original 1974 plan. The state was divided into four geographic regions based on the numbers of births in each area. The MUSC perinatal region was divided due to the development of McLeod Regional Medical Center in Florence and the need to recognize four HSA health planning regions. MUSC would now be responsible for the seven southern coastal counties and McLeod would be responsible for the nine northern coastal counties. The other two perinatal regions were unchanged.

Other revisions included changes in financial support to include outpatient care from conception through the neonate's first year of life; statement of minimum standards and necessary capabilities for each type of hospital; inclusion of guidelines regarding consumer issues and special groups of consumers; and, inclusion of guidelines for all of the disciplines involved in perinatal care. Much more de-

tailed than the 1974 plan, the 1979 plan described specific hospital requirements and responsibilities for each perinatal level of care.

In July, 1983, South Carolina Governor Richard Riley, by executive order, formed a Governor's Council on Perinatal Health. This Council was charged with assessing the current status of services affecting perinatal health, identifying gaps in assuring perinatal health care, and developing a plan identifying specific steps for improvement. The council included representatives from the S.C. Medical Association, Hospital Association, Nurses Association, Department of Education, Department of Social Services, Department of Health and Environmental Control, the Statewide Health Coordinating Council, the Governor's Council on Rural Development, the State Community Action Agency, the Primary Care Association, the Palmetto Medical, Dental and Pharmaceutical Association, the South Carolina Perinatal Association, consumers, and at-large members.

The assessment of the committee, the *Perinatal Health Services Assessment*, was presented to Governor Riley in December, 1983, containing a needs assessment and recommendations for remediative action.¹¹ Following this assessment, the *Perinatal Plan of Action* was prepared describing the implementation of the recommendations contained within the assessment.¹²

Implementation of the action plan began in April of 1984. The action plan covered a wide variety of steps for improving perinatal health and a timetable for their completion. The timetable suggested that initiatives were to begin in 1984 with final completion in 1987. The *Perinatal Plan of Action* also contained specific recommendations for reaching these goals through corrective action and new initiatives. The recommended actions were based upon currently available or anticipated manpower and financial resources, and involved various public and private agencies and organizations throughout the state.

In April, 1985, Governor Riley designated the Bureau of Maternal and Child Health of the Department of Health and Environmental Control as the agency to oversee the implementation of the *Perinatal Plan of Action*. The Bureau of Maternal and Child Health was to

provide to the Governor and selected agency heads an annual status report on the implementation of the specific guidelines.

Today, almost all of the recommendations from the Action Plan have been accomplished. These include extending and funding Medicaid coverage to the medically needy, receiving a waiver from the Health Care Financing Administration to "channel" pregnant women determined to be at high risk to appropriate care providers and delivery settings (High Risk Channelling—HRCP), and maintaining the low birth weight prevention program. In addition, a statewide Healthy Mothers, Healthy Babies coalition has been established to publicize problems associated with perinatal health. A final report was completed in 1988. A subsequent executive order by Governor Riley in 1986 established the Governor's Council on Maternal, Infant, and Child Health. This is a permanent committee which reports annually to the Governor and the legislature on the progress and plans for improving maternal and infant health in South Carolina. This activity insures the continuity of past efforts across various administrations of the Governor's Office.

South Carolina elected to participate in the expansion of the Medicaid coverage for pregnant women and infants and began this coverage on October 1, 1987. This coverage increased the income eligibility for pregnant women from 50% of poverty (under the old guidelines) to 100% of poverty. A major milestone, this action not only ensured financial access to care for many poor women and children, but finally uncoupled Medicaid payments from Aid to Families with Dependent Children (AFDC) grants administered by the Department of Social Services. It is anticipated that Medicaid coverage with expanded benefits will increase to 150% of poverty by the end of FY89.

The Bureau of Maternal and Child Health revised and updated the 1979 approach to regional perinatal care in October, 1986. The most significant changes targeted inpatient payments for newborn care. These funds, which had previously been used to pay for indigent newborn care, were redirected to systems development of regional perinatal care. Contracts with each of the six regional centers

(comprising the four perinatal regions) stipulate the following requirements: (1) Each region must employ a coordinator (Regional Systems Developer) to oversee the contract requirements within the respective regions, act as a liaison between the center and community hospitals, and perform an annual regional needs assessment; (2) Transport programs: each perinatal region is required to have a functional neonatal transport program and, in addition, is to pursue the development and operation of a functional maternal transport program; (3) Educational outreach: each perinatal region is to provide continuing education to hospitals, community health clinics, and public health agencies within the region; (4) High risk developmental follow-up: each perinatal region must identify certain graduates of the neonatal intensive care unit in the respective centers and assure the provision of follow-up for health assessments for these at-risk infants; (5) Data collection: each regional center is to collect information on graduates of the neonatal intensive care unit as well as the activities of the above outlined functions for submission to the Bureau of Maternal and Child Health.

These efforts continue throughout the state. Evaluation of regionalization has been performed through DHEC's Five Year Plan perinatal impact objectives. The Bureau of Maternal and Child Health is also developing a surveillance system with the aid of a Centers for Disease Control assignee, Dr. Bill Sappenfield, to monitor South Carolina's regionalization system.

The current form of perinatal regionalization takes those recommended by the *Guidelines for Perinatal Care* and expands them for greater efficiency. This strategy has been utilized in several other states with exceptional success.^{13, 14} The present approach to regionalized perinatal care has proven cost effective in both resources and services. Not only has systems development lowered fetal and neonatal mortality, the gains were purchased at a savings to the public.^{15, 16}

For South Carolina to fully reap the benefits of over 15 years of dedicated attention from health care professionals, we must continue to support our regionalized perinatal care efforts. Professionals and public alike must realize that

- REGIONALIZED PERINATAL CARE -

regionalization does not mean having an intensive care nursery in every community. We must guarantee that assuring patient care based on health risk in an efficient cost-effective manner, insisting on a strong facilities review process, and relying on specific health care needs as the sole motivation in expenditures and further regional development are key elements in our regionalization efforts. The end result will be better perinatal health care for all South Carolinians.

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II. SYSTEMS DEVELOPMENT: SOUTH CAROLINA'S APPROACH TO REGIONAL PERINATAL CARE.

Formal plans for the regionalization of perinatal care services differ among the states. The structure of these range from simple designation of hospital level of care to very detailed contracts which outline the responsibilities of each health care participant. This article is designed to familiarize physicians and others with the specific approach toward perinatal regionalization in South Carolina.

DEVELOPMENT

As noted in the previous chapter, the original activities targeting regional perinatal care were primarily directed toward payment for high risk maternal and infant services and identification of hospital capability to care for patients with varying degrees of risk. In October, 1986, the strategy to regionalize care in the state was restructured from one primarily of reimbursement for patient care to one of systems development.

Systems development is a process which first identifies the various programs and providers involved in the care of the mother and infant throughout the childbearing cycle and secondly, attempts to assure the coordination of these independent programs to achieve a cost effective comprehensive plan of care for patients. Simply, systems development attempts to assure the coordination of existing programs into a unified approach toward a common goal. For perinatal care, the systems approach attempts to enhance the coordination of obstetrical and neonatal support through cooperative agreements with health departments, community health centers, private physicians, community hospitals, regional hospitals and other perinatal health care providers.

These cooperative agreements target individual program components with particular emphasis on early determination of patient risk, access to risk appropriate care and case management. Full development of regional systems of perinatal care should ensure appropriateness of care (care which is appropriate to the risk status of mother and infant) and continuity of care (care that continues from conception through the first year of life.).

A successful program would determine the health risk and needs of specific populations within a defined area and identify factors which might impede the delivery of risk appropriate care. Operationally, these areas are addressed by the Regionalized Perinatal Care program administered by DHEC-BMCH-DMH (South Carolina Department of Health and Environmental Control—Bureau of Maternal and Child Health—Division of Maternal Health) through contractual arrangements in each of the four perinatal care regions in South Carolina.

CONTRACTS

In each region there is a hospital or group of hospitals responsible for the perinatal systems development in their respective geographic areas (see Figure I). As noted, there are four regions designated. In Region I, there are three hospitals which function as a consortium for the regional perinatal program (Self Memorial Hospital, Spartanburg Regional Medical Center, and Greenville Hospital System).

There is a single regional center in the other three regions. These are Richland Memorial for Region II, McLeod Regional Medical Center for Region III, and the Medical University of South Carolina for Region IV. Each of the six regional centers have completed contracts with DHEC which outline their role and responsibilities as regional centers. Each contract contains the following component pieces.

(1) Regional Systems Developer (RSD)

The regional systems developer is an individual employed jointly by the regional center and DHEC to oversee the requirements of the contract and coordinate the systems development activities. Perhaps the most significant RSD role is the development of an annual needs assessment which identifies problem areas (both programmatic and geographic) which restrict the delivery of risk appropriate care and continuity of care. This assessment is designed to target strengths and weaknesses in the delivery of risk appropriate care to the mother (both antepartum and intrapartum) and the neonate. Data from both the public

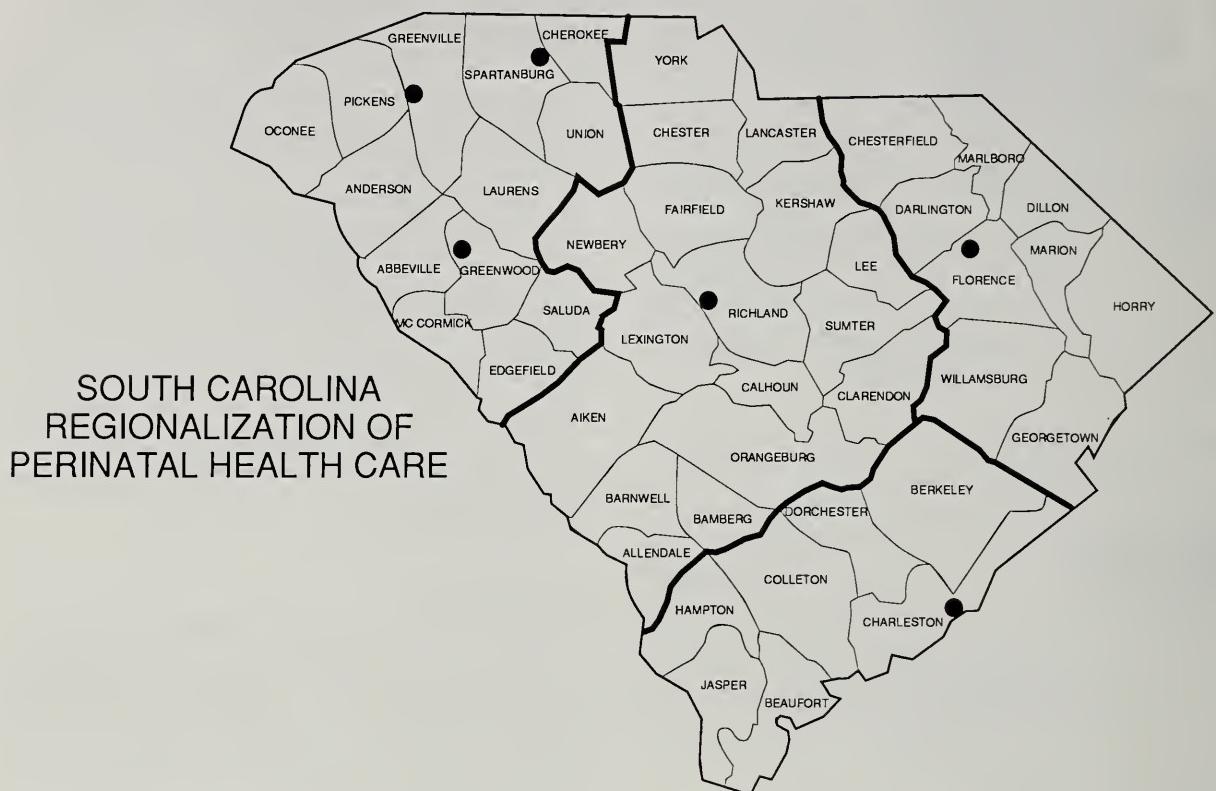


FIGURE I.

and private sectors are examined and include such areas as availability of prenatal care, transportation access for both mother and newborn, distribution of births by birthweight (geographically and by hospital), and various outcome statistics.

The RSD also serves as a liaison between the community and the regional center with a particular emphasis on the reduction of barriers to risk appropriate care, barriers to continuity of care, and the promotion of case management of the high risk patient. The RSD serves to identify obstacles to regionalization and its effectiveness and to initiate steps to eliminate them. Questions regarding the specific operation and administration of any of the regional perinatal health care programs may be directed to the regional systems developer (RSD) for that region (see Table 1).

(2) Educational Outreach

An essential element of regionalized care is the ongoing dissemination of information from the regional center to the health care providers in their contract region. A major

component is the professional obstetrical and neonatal education offered by most regional centers to the various health care providers in the region. Each region is able, through either the obstetrical educator or the newborn educator, to tailor programs to the community needs. The outreach educators present an ongoing series of seminars specific to the educational needs identified in the region's community hospitals and health departments which focus on specific topics such as identification of the high risk pregnancy, newborn risk assessment, resuscitation and stabilization for transport and management of the growing premature infant. Health care providers may (and frequently do) request specific topics of special interest to them. Hospital physicians, nurses and others are also invited, in some regions, to participate in the Charlottesville Perinatal Continuing Education Program (PCEP) which is a self-paced formal course for the community physicians and nurses. An important segment of the outreach education program involves case presentations in the community hospital of patients referred from that hospital,

REGIONALIZED PERINATAL CARE

TABLE 1.

County		Regional Center	Outreach	Transport	RSD	
Aiken Allendale Bamberg Barnwell Calhoun Chester Clarendon Fairfield Kershaw	Lancaster Lee Lexington Newberry Orangeburg Richland Sumter York	Richland Memorial Hospital	Fran Byrd 765-6392	Fran Byrd 765-6392	Lisa Hobbs 253-4302	
Beaufort Berkeley Charleston Colleton	Dorchester Hampton Jasper	Medical University of South Carolina	Kathy Ray / Eliz. Jones 792-2112	Pat Wagstaff 792-9544	Tom Hulsey 792-5179	
Chesterfield Darlington Dillon Florence Georgetown	Horry Marion Marlboro Williamsburg	McLeod Regional Medical Center	Pam Brown / Jeannie Thompson 667-2455	Jeannie Elmore 667-2483	Marylou Martin 667-2483	
Anderson Greenville	Oconee Pickens	Greenville Memorial Medical Center	Bridget Allen 242-7939/ Betty Humphries 242-8205	Carole Whitten 242-7165	Susie Peden 242-8205	
Abbeville Edgefield Greenwood	Laurens McCormick Saluda	Self Memorial Hospital	Rebecca Grupinski 227-4449/ Betty Humphries 242-8205	Ron Deeder 227-4494		
Cherokee Spartanburg Union		Spartanburg Regional Medical Center	Kathy McCoy 591-6380/ Betty Humphries 242-8205	Treasure Snyder 591-6297		
DHEC Central Office Coordinators assigned to monitor Regional Perinatal Program components.		Data Collection Developmental Follow Up Clinics	Marie Thompson 737-4050			
		Outreach Education (OB and Neo) Maternal and Neonatal Transport Regional Systems Developers	Tom McGee 737-3995			

as well as inservice training for community hospital nurses in the regional center. In addition, it is anticipated that an obstetrical continuing education module, developed by Dr. Henry Heins and Jean E. Martin RN, CNM, MS, MSN, will soon be available.

Each region is required to present either an annual perinatal seminar or an obstetrical and neonatal seminar to facilitate communication between the community providers of perinatal care and the regional center staff. Information regarding outreach education and requests for inservice/presentations may be requested from the outreach educator in each center.

(3) Emergency Transport

Critical to the success of regionalized perinatal care is a system by which patients are transported to facilities for risk appropriate care. Each regional center has the responsibility to assure that high risk obstetric and newborn patients have access to emergency transport as needed. Community hospitals within a region may assume that their respective designated regional center has an emergency transport plan for its region. As such, the community hospital should call its designated regional center whenever a transport is indicated. That center will assure the appropriate transport. All regional centers have access to ground transport locally, and any regional center may request air transport by coordinating with the appropriate neonatologist for MAST dispatched by Richland Memorial or MEDUCARE dispatched by the Medical University.

Inter-regional transports occur through requests from one regional center to another regional center. To assure the shortest response time, therefore, community hospitals should contact their respective regional center for transport assistance.

As with the educational outreach and RSD components, each regional center has an individual (or individuals) who serves as the neonatal transport coordinator or the maternal transport coordinator. Any questions regarding transport policy or transport procedures may be directed to the transport coordinator in the appropriate center.

(4) Developmental Follow Up

Although criteria for entry into the various follow up programs vary according to region,

each center is charged with assuring that children at risk for developmental disability are followed by a team of specialists. The follow-up team differs in each center, but usually consists of a physician, social worker, nurse, physical/occupational therapist, child psychologist, or developmental specialist.

Assessments are provided at no charge to the patient and children may be enrolled at some centers for up to seven years post-discharge (depending on the specific region). None of the developmental follow-up programs are identical as each utilizes the particular resources available in its regional center. Most are designed as screening programs, however, and do not provide primary care. Children with suspected or identified health problems are referred to the appropriate health provider for assessment and treatment as needed. The high risk developmental follow-up teams coordinate their services with those of the private physician and/or public health community as appropriate.

Each regional center participates in a state-wide developmental information system centered in DHEC. This system is designed to determine those child populations which are particularly vulnerable to developmental delay in the early years of life. Over time, the DHEC system should be able to identify those risk categories which, through early identification and case management, should receive specialized intervention designed to maximize quality of life.

(5) Data Collection

Each center is required to report to DHEC certain information regarding admissions to and discharges from their newborn intensive care programs. Information on systems development, educational outreach, transports, and developmental follow up are also required. As these data are accumulated, DHEC will be able to identify the strengths and weaknesses of the various activities contained within the state's regionalized perinatal care efforts.

The South Carolina regionalized perinatal care program is designed after the framework outlined in *Guidelines for Perinatal Care*.⁶ There are obvious slight modifications but the original intent of risk appropriate care combined with efficient utilization of resources re-

REGIONALIZED PERINATAL CARE

mains. Communication and coordination between health departments, physicians, hospitals, community health centers, as well as nurses, obstetricians, neonatologists, pediatricians and others is necessary if we are to reduce our high perinatal mortality rates. A long term commitment of perinatal health care providers toward systems development can ensure its eventual success. □



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SCMA NEWSLETTER

AUGUST 1989

HIGHLIGHTS OF JULY BOARD OF TRUSTEES MEETING

The primary goal of SCMA President Daniel W. Brake, MD, is to identify the direction in which health care should move into the next century. The newly-formed SCMA Health Care 2000 Committee composed of a cross-section of the population, including patients and providers, will address this issue by conducting an in-depth study of the health care system as it exists today. The committee plans to direct its efforts toward impacting health care at the state level, and perhaps even at the national level. Topics for discussion at future committee meetings include the Medicare program and the ethical issues involved in the most appropriate use of health care resources.

MEDICARE UPDATE

Physician Identification Numbers

By now you should have received a July 6 Medicare Advisory stating that HCFA has postponed the requirement that a referring physician ID number be included on claims of radiologists, pathologists and physicians using a consultation code. It appears that sometime this fall, HCFA will issue a UPIN (unique provider identification number) to all physicians, and this requirement will again be in effect.

Expenditure Targets

You should also have received a letter from the AMA alerting you about "ETs" (expenditure targets). As explained in Dr. John Hawk's AMA update in last month's Journal, the AMA is strongly opposing this proposal which would attempt to balance the federal budget by limiting future Medicare expenditures, no matter how medically necessary the care might be, if annual Medicare costs exceed the projected target. Write to your congressmen and senators asking them to vigorously oppose "ETs" in the Medicare program or any other action which would lead to the rationing of or reduction of access to medical care.

MEDICAID UPDATE

FY'90 Appropriations Act

The SC General Assembly increased the state budget by 11 percent with a \$3.5 billion FY'90 Appropriations Act. Along with substantial outlays for education and prisons, the record spending bill provides a big increase for health and human services, including \$592 million for the Medicaid program, a 48

percent increase over this year's budget.

The \$15 million Medically Indigent Assistance Fund will be folded into the state contribution and used to attract additional federal matching funds effective July 1.

Income Eligibility Increase for Pregnant Women & Infants

As reported in the July "SCMA Newsletter", the Medicaid Program has increased the income eligibility limit for pregnant women and infants to 185 percent of poverty, or \$18,600 per year for a family of three. It is important to note that a "family of three" would include a father and an expectant mother. This 185 percent level is in effect for children up to the age of one year. It is hoped that this new funding for prenatal and postnatal care will significantly cut the state's high infant mortality rate by reducing the number of infant deaths and physical and mental impairments caused by inadequate medical care for expectant mothers and infants.

Increase in Prescription Drug Limit

Effective July 1, 1989, the Medicaid Program will pay for a maximum of four prescription drugs per month per recipient rather than three. Insulin syringes and specially authorized home parenteral therapies are still excluded from the new monthly limit. The \$1 co-payment per prescription drug for non-exempt recipients is still in effect.

Change in Reimbursement for Physical Examinations

Physical examinations for adults age 21 and older will be reimbursed by Medicaid at a rate of \$100 per examination effective July 1. These examinations are limited to one examination per recipient every five years. Providers must submit claims for this physical examination using procedure code 90750 and diagnosis code V70.9.

PRO UPDATE

"20-Day" or "30-Day" Letters

Initial physician review in the peer review process often leads to the generation of "20-day" or 30-day" letters. These letters are strictly requests for additional or clarifying information; they are not denials or sanction letters. The information provided by the attending physician is added to the medical record before the record is sent for a second review. Failure to respond to the letters results in a decision being made without additional input.

Carolina Medical Review encourages all physicians to take advantage of the opportunity to provide more information. Additionally, a telephone conference with a physician consultant

is also available if requested in writing in response to a "20-day" or "30-day" letter. Most problems are cleared after this additional information is received.

Quality Intervention Plan

Effective April 1, 1989, the nation's 54 PROs began implementing the new provisions in HCFA's Third PRO Scope of Work. The Quality Intervention Plan (QIP) is a new provision which requires PRO physicians to identify and confirm quality concerns in cases they review. The QIP sets forth three levels of medical mismanagement according to whether there are significant, potential or no adverse effects on the patient. Each level is assigned a severity weight.

Each quarter, the PRO will profile the total weights accumulated for reviews completed during that quarter for each physician or provider. The total severity weight will determine the type of corrective action to be implemented. The PRO must initiate corrective action when any provider receives a total weighted score of three or more. Interventions and trigger levels are notification (3), educational efforts (10), intensified review (15), other interventions (2), consideration of coordination with licensing and certification bodies (25), and consideration of sanction proceedings (25). Each PRO is required to use the HCFA QIP and implement the intervention inclusive of lesser trigger levels. In other words, a score of 19 would require notification, educational efforts and intensified review. The PRO must exercise flexibility in determining what intervention is appropriate to the particular case.

AIDS UPDATE

OSHA Proposed AIDS-Protection Rule

In the May 30 issue of the Federal Register, the Occupational Safety and Health Administration proposed a rule designed to protect health-care workers from exposure to bloodborne pathogens, particularly the viruses which cause hepatitis and AIDS.

The rule, "Occupational Exposure to Bloodborne Pathogens: Proposed Rule and Notice of Hearing," will affect all health-care workers who may come into contact with blood and other potentially infectious materials. Copies may be obtained by calling Kim Fox or Joy Drennen at SCMA Headquarters.

STATE SALES AND USE TAXES

Effective July 1, 1989, sales of dental prosthetic devices, whether sold by prescription or not, are exempt from the sales and use tax. However, sales of all other prosthetic devices and medicines must still be sold by prescription in order to be exempt.

LIMITS SET FOR PHOTOCOPYING RECORDS

Effective June 8, 1989, physicians may charge \$5 or 50 cents per page, whichever is greater, plus actual postage costs, for photocopying patient records for Workers' Compensation claims. This covers only existing information and does not include any written summaries or opinions requested. If the information is not received from the physician within 45 days of receipt of request, the physician may be fined up to \$200.

Effective July 1, 1989, physicians may charge \$10 or 50 cents per page, whichever is greater, for furnishing copies of patient records for automobile insurance claims.

PUBLICATIONS/VIDEOTAPES AVAILABLE

"Collective Negotiation and Antitrust," a publication of the new Physician Negotiation Advisory Office within the AMA's Office of the General Counsel, is now available. The booklet explains antitrust laws, how they affect physicians' practice, and what MDs and medical societies can do with respect to third-party payers. AMA members can get a free copy by calling (312) 645-5601.

A videotape of the SCMA/SCHA conference held in June on "Eliminating Risks in the Emergency Room" is available at a cost of \$65.00. Contact Doris Clevenger, SCHA, PO Box 6009, West Columbia, SC 29171 or call 1-796-3080.

MEMBERSHIP ACHIEVEMENT

Bamberg and Chester Counties have joined Hampton County Medical Society in achieving 100 percent membership in the SCMA.

UPCOMING CONFERENCES

The 14th Annual Assembly of the AMA-Hospital Medical Staff Section (AMA-HMSS) will be held November 30 - December 4, 1989 at the Sheraton Waikiki Hotel, Honolulu, Hawaii. Medical staffs are encouraged to elect a representative to participate in this assembly which provides a unique opportunity to discuss and participate in the policymaking process of the AMA. In addition to the assembly meeting, the HMSS will sponsor an educational program on a topic of interest to medical staffs. For further information, call (312) 645-4754 or 4761.

The SC Area Health Education Consortium (SC AHEC) Center for Recruitment, Retention and Placement will sponsor their 4th Annual Practice Opportunities Fair on September 8-9 in Columbia. The fair is designed to help residents identify and evaluate practice opportunities throughout the state. For further information, call Mary Chesshire or Becky Seignious at 1-792-4431.

III. ASSOCIATION OF HOSPITAL LEVEL OF CARE WITH MORTALITY AMONG INFANTS DELIVERED VERY LOW BIRTHWEIGHT

For every 1,000 babies born in South Carolina in 1986, 13 died during their first year of life, making South Carolina's infant mortality rate among the highest in the nation. As in most states, approximately two-thirds of these deaths occurred during the first 28 days of life, the neonatal period. Infants with birthweights between 500 and 1500 g (very low birthweight) constituted over 40 percent of these neonatal deaths while representing less than two percent of the total births.

Efforts to lower the infant mortality rate have targeted both the reduction of low weight births and aggressive medical management of high risk babies. Survival rates increase markedly when very low birthweight (VLBW) infants are born in regional perinatal centers.¹⁴

Investigators of neonatal mortality rates by the level of medical care available in the hospital of delivery indicate significantly greater survival rates, particularly among the very low birthweight groups, for infants delivered in perinatal centers or tertiary hospitals.¹⁷⁻²⁰ To determine whether similar patterns in neonatal mortality exist in South Carolina, the present study compared the VLBW neonatal mortality rates in regional perinatal centers with those of non-regional community hospitals.

METHODS

Vital statistics records of hospital births of infants weighing 501-1499 g (VLBW) were examined for 1984-86. Neonatal mortality rates for VLBW infants were computed for both non-regional community hospitals and high risk regional perinatal centers. Mortality rates were computed as the number of deaths among VLBW neonates in a hospital group divided by the number of inborn live VLBW births in that hospital group \times 1000. Since this report focused on hospital of delivery, neonatal mortality rates were computed for hospital of birth. If a non-regional community hospital transferred a neonate to a high risk regional center for care and the child later died in the regional center, the death was recorded for the community hospital as the hospital of birth.

For the purposes of this report, the following hospitals were operationally defined as high risk regional perinatal centers: Greenville Memorial Medical Center, Spartanburg Regional Medical Center, Self Memorial Hospital, Richland Memorial Hospital, McLeod Regional Medical Center, and the Medical University of South Carolina. All other hospitals were classified as non-regional community hospitals.

It is acknowledged that there are tertiary hospitals in South Carolina which are not regional perinatal centers. Since it is impossible to measure the qualitative care within hospitals, or across levels of hospital designations, this analysis relied on the regional center designation for comparisons. This classification was more objective and no other implication is made. This is an important distinction and should not be misinterpreted.

RESULTS

Overall, from 1984 to 1986, South Carolina experienced no significant change in either the incidence of VLBW births or the neonatal mortality among VLBW infants (see Table 2). There appeared to be a shift, however, in the location of both VLBW births and VLBW neonatal mortality. During this three-year period, fewer VLBW births were delivered in community hospitals (Figure II). The VLBW neonatal mortality in community hospitals increased, although the increase was not statistically significant. From 1984 to 1985, community hospitals contributed an increasing proportion of deaths to the state's total mortality. The contribution from community hospitals from 1985 to 1986 was unchanged.

There were statistically significant differences in the VLBW neonatal mortality between community hospitals and regional perinatal centers (see Figure III). For 1984, the VLBW neonatal mortality for regional perinatal centers was 26.2% compared to 35.5% for community hospitals (X^2 : $p<0.01$).²¹ For 1985, the VLBW neonatal mortality for regional perinatal centers was 24.5% compared to 44.4% for community hospitals (X^2 : $p<0.01$).²²

REGIONALIZED PERINATAL CARE

Distribution of Very Low Birthweight (VLBW: 500-1500 grams birthweight) Births and Neonatal Deaths in South Carolina Hospitals, 1984 - 1986.

	1984	1985	1986
S.C. Total Hospital Births	48197	49397	49468
S.C. Total VLBW Births	725	730	687
S.C. Percent VLBW	1.5 %	1.5 %	1.4 %
S.C. Percent VLBW Neo. Deaths	29.1 %	30.1 %	29.3 %
Percent S.C. VLBW Births In Community Hospitals	31.0 %	28.4 %	26.5 %
Percent S.C. VLBW Deaths In Community Hospitals	37.9 %	41.8 %	41.8 %
Percent VLBW Neo. Mortality in Community Hospitals	35.6 %	44.4 %	46.1 %
Percent VLBW Neo. Mortality in Regional Hospitals	26.2 %	24.5 %	23.2 %

TABLE 2.

For 1986, the VLBW neonatal mortality for regional perinatal centers was 23.2% compared to 46.1% for community hospitals (X^2 : $p<0.01$).²³

These data suggest that while a smaller proportion of VLBW births were being delivered in community hospitals, their mortality rates

increased. Furthermore, of the total VLBW neonatal deaths in South Carolina, the proportion contributed by community hospitals increased over time.

DISCUSSION

These data demonstrate that infants with birthweights between 501 and 1499 g have the best chances for survival when delivered in a regional perinatal center. During the time period under study, neonatal mortality rates for VLBW infants delivered in community hospitals increased while mortality decreased for VLBW infants delivered in regional perinatal centers. This is more striking when one considers that there was an overall increase in the proportion of VLBW births occurring in regional centers. With more high risk births in perinatal centers and fewer VLBW births in community hospitals, it could be expected that mortality rates in the community hospitals would increase.

One explanation may be that many high risk deliveries at community hospitals presented in advanced stages of labor and could not be transferred antenatally. If so, the number of VLBW births remaining in community hospitals could have been disproportionately com-

PERCENT OF S.C. VERY LOW BIRTH WEIGHT BIRTHS AND NEONATAL DEATHS THAT OCCUR IN COMMUNITY HOSPITALS; BY YEAR

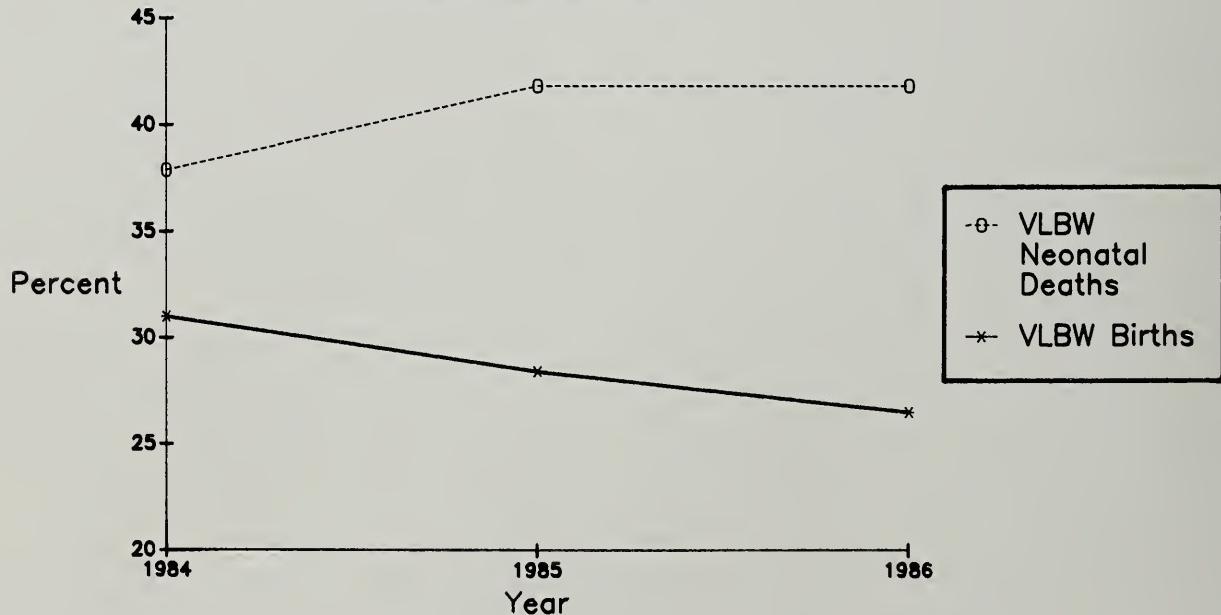


FIGURE II.

REGIONALIZED PERINATAL CARE

VERY LOW BIRTH WEIGHT NEONATAL MORTALITY; SOUTH CAROLINA; BY HOSPITAL TYPE

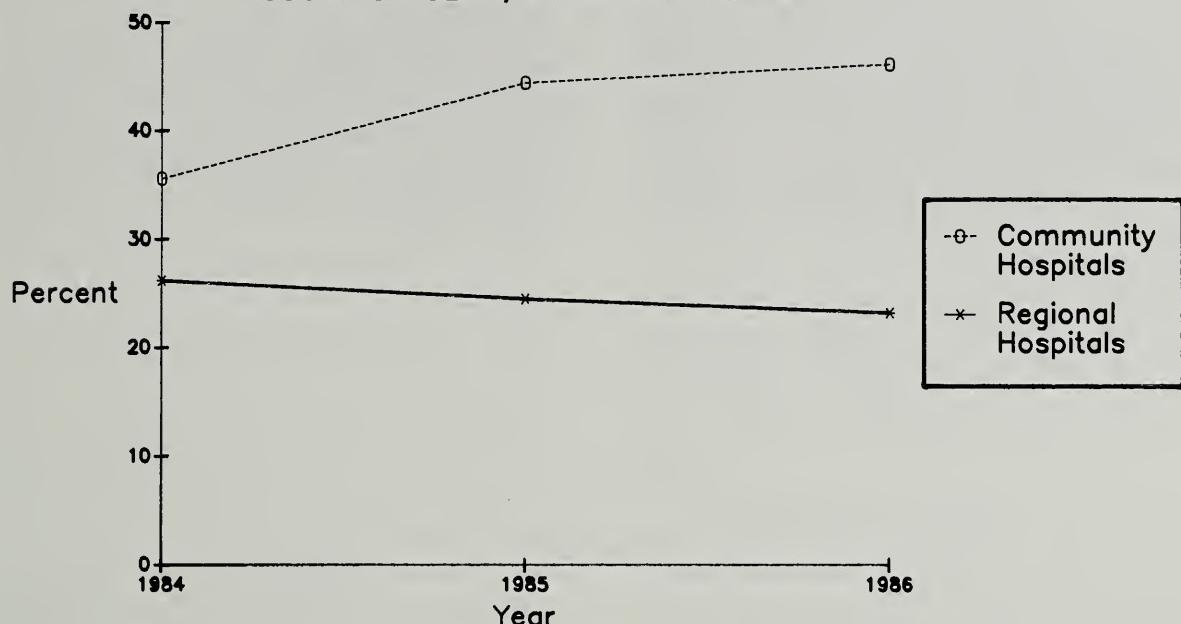


FIGURE III.

prised of particularly high risk deliveries. The result of such a shift may have been fewer total VLBW births (as observed) but an increase in VLBW mortality (as observed). This theoretical shift, however, does not explain why the percentage of total deaths contributed by non-regional community hospitals did not decrease. In contrast, such a shift should have resulted in a reverse trend.

An explanation may be that the VLBW deliveries transferred antenatally from community hospitals to regional centers did not contribute proportionately to the regional center's mortality rate. If mothers selected for transport comprised the hardest deliveries, the effect could result in no additional mortality in the regional center and a disproportionate contribution of total mortality from the community. While there are no data to confirm the above, one possible explanation is that non-regional centers were referring mothers at high risk for VLBW deliveries, but low risk for VLBW neonatal deaths. The patients remaining at the non-regional center were at high risk for both VLBW delivery and VLBW neonatal death.

Regardless of the cause, the data indicate that by 1986, community hospitals in South Carolina experienced increasing VLBW neo-

natal mortality and contributed 41.8% of the state's total VLBW neonatal deaths in spite of delivering only 26.5% of the total VLBW hospital births (see Figure III). Community hospitals appear to have begun to embrace the concepts of regionalized perinatal care as evidenced by delivering fewer VLBW births. The percentage decline in high risk deliveries is suggestive of increased antenatal transfers for deliveries of expected VLBW births. It is hoped that this trend will continue with a resultant reduction in neonatal mortality.

Early identification of risk status and the commitment to antenatal transfers should significantly increase survival in this group of high risk babies. It is noted that any antenatal referral of a high risk pregnancy must be accompanied by the acceptance of the referral at a high risk institution. The involvement and cooperation of at least two institutions is required for successful high risk referrals.

A second point is that determination of risk status, antenatally, requires the availability of, and access to, prenatal care. While the data presented in this report grouped VLBW neonatal mortality rates by hospital of delivery, regionalized perinatal care is evaluated by more than the location of VLBW deliveries. Community hospitals are critical to the success

REGIONALIZED PERINATAL CARE

of regionalization by providing obstetric services to low and intermediate risk patients and accepting back transports from regional tertiary centers. By accepting intermediate and low risk back transfers, high risk beds are available for patients requiring tertiary care. Community hospitals deliver the majority of births in S.C.; over 65% of the total hospital births in

1986 were delivered in community hospitals.

From its early conception, regionalization embodied the interworking relationships of existing health care systems into an approach tailored to the needs of the patient and designed to be cost effective. The future success of the program depends on strengthening these relationships. □



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IV. REGIONALIZATION: A REVIEW OF THE ISSUES

The first three sections presented information regarding regionalization efforts with a focus on South Carolina. Unfortunately, few published studies have targeted the results of those activities. This final section will, therefore, focus on the highlights of the major program components (Neonatal Intensive Care, Maternal and Neonatal Transport, Cost Analysis, and Outreach Education) as evidenced from reports from around the country. While the most dramatic impact of regionalized perinatal care is measured in shifts in mortality rates, regionalized perinatal care is much more than specialized clinical care for high risk mothers and newborns. It includes, in addition to neonatal intensive care, high risk prenatal care, maternal and newborn transport, cost analysis, professional education, developmental follow up, research and ongoing evaluation of all components.

NEONATAL INTENSIVE CARE

Perhaps the first goal of regionalized care was to assure access to intensive care for all high risk newborns. The improved outcome documented among premature infants with access to neonatal intensive care compared to outcomes of those without the access of this support confirms the wisdom of this objective.^{24, 25} Studies of the effectiveness of intensive care programs for newborns have clearly indicated reduced birthweight-specific mortality among high risk neonates born in Level III hospitals.

Cordero, et al. (1982) studied the neonatal mortality of infants with birthweights between 500 and 1250 grams born in the six hospitals in Columbus, Ohio from 1977 to 1979, and found a significant inverse relationship between the hospital level of care (I, II, or III) at birth and neonatal mortality rate. Examination of birthweight categories suggested that, regardless of hospital level of care, neonatal mortality decreased with increasing birthweight. Compared to Level III hospitals, however, Level I and II hospitals demonstrated significantly higher neonatal mortality rates for every birthweight group (see Table 3). The most striking differences were observed in the 751-1000 gram group. Overall, the regional center expe-

rienced a 47% neonatal mortality for study infants compared to 62% in the community hospitals ($p < 0.01$).¹⁹ This is even more striking when one realizes that in 1979, private neonatologists were located in two of the five non-university hospitals in Columbus.

This investigation suggests increased survival for very low birthweight infants born in a tertiary care hospital. The authors concluded 'Our data in regard to survival of the premature infants under 1,250 gm show that 15% more infants would have survived if they had been delivered at the regional perinatal center.'¹⁹

Other investigators have demonstrated similar results.^{18, 26-30} Gortmaker, et al. (1985) found a significantly greater rate of survival at 96 hours after birth for Level III inborn very low birthweights infants. This study examined 53,948 births over a two-year period for four states. These patterns of survival remained after controlling for hospital differences in birthweight distribution, race, gestational age, and multiple births.¹⁴ Williams (1979) found hospital level of care was a more important predictor of survival, than medical or socioeconomic measures, in his review of over three million live births in California.¹⁷

TABLE 3
Mortality Rates by Birth Weight Groups and
Level of Hospital of Delivery

	500-750g	751-1000g	1001-1250g	Total 500-1250g
Level I, II Hospitals	97%	71%	33%	62%
Level III Hospitals	84%	56%	24%	47%

These studies are representative of a much larger body of literature. Whether using relatively small hospital records data sets or large vital records data sets, the results are consistent. Very low birthweight infants born in hospitals with neonatal intensive care units have a significantly greater chance for survival than do similar infants born in Level I or II hospitals. This trend remains even after controlling for the differences in the populations (demographic, health, etc.) served by individual hospitals.

NEONATAL TRANSPORT

While it is not possible for all high risk newborns to be delivered in a regional center, the literature suggests increased survival may be possible by utilization of perinatal transport systems. Of very low birthweight newborns delivered in community hospitals, those selected for transport have lower mortality rates than those remaining in the hospital of birth.^{18, 19}

Cordero et al. (1982) found that among those very low birthweight infants (<1500gm) born in Level I or II hospitals, non-transported infants experienced 26% higher mortality than infants who were subsequently transported to the regional center.¹⁸

Transported infants as a group are highly selected, and those clinically thought to have minimal chances of survival may not be transported. A study by Sachs (1983), found that survival of extremely low birthweight (<1000gm) transported infants was higher than similar infants delivered in the tertiary center (suggesting a selection bias among the smallest infants). Transported infants with birthweights greater than 1000 gm had survival rates lower than similar infants delivered in the tertiary center. In addition, the survival of transported infants was directly proportional to the distance transported. Survival of infants transported from hospitals located nearby was less than that for infants transported from hospitals located farther away.³⁰

The literature on the effectiveness of transport has been criticized because of the potential selection bias among those transported.³¹ While the quality of the transport services also influences survival, its effect can only be demonstrated on infants that survive long enough to be transported, and are anticipated to ultimately survive. Deaths in the first hours of life may more closely reflect skills in intrapartum management, neonatal resuscitation, and stabilization.

Paneth et al. (1984), examined the neonatal mortality of all low birthweight (501-2250 gm) singletons delivered in each of the three hospital levels of newborn care in New York City (N=13,560). Fourteen maternity services were classified as Level III (4598 births), 20 as Level II (5857 births), and 32 as Level I (3105 births).

Infants delivered in Level I and Level II

units had similar overall neonatal mortality and these death rates were significantly higher than the corresponding rates at Level III units ($p<0.05$). Ninety-five percent of the deaths which occurred in the first four hours of life, for both Level I and II, occurred in the hospital of birth. After the first four hours, the place of death was distinctly different for Level I and Level II births.

Within four hours of birth, Level I hospitals had the highest mortality rate among infants with birthweights less than 1251 grams (68/1000). At about 18 hours of age, however, the survival curves of Level I and Level II births intersect. By 28 days, survival at Level I units was higher than that at Level II and closely approached that for Level III. This effect was not evident for heavier birthweights (1251-2250 grams).

The authors adjusted the mortality rates for the distribution of birth weight, gestational age, race, sex, mother's age, parity, education, marital status, type of financing, complications of pregnancy and inadequacy of prenatal care. After controlling for these differences across hospitals, the results were unchanged.

In the discussion, Paneth et al. suggested that deaths within the first four hours of life constituted a component of perinatal mortality that could not be influenced by infant transport and reflected clinical management.³² These data, with those of others, strongly support the concept of antenatal transport for high risk deliveries and suggest there is a limit to the benefit of neonatal transport in affecting overall mortality.^{33, 34}

MATERNAL TRANSPORT

Harris et al., examined antenatal (N=285) and neonatal (N=776) transports received by a single tertiary center over a three-year period. Of total transports, antenatal transports increased from 5.5% to 34.7% over the study period. Newborns of antenatal transports had significantly lower neonatal mortality than neonatal transports ($p<0.0001$). Fewer antenatal transports required continuous positive airway pressure ($p<0.0005$) and intermittent positive pressure ventilation ($p<0.0001$) than neonatal transports. In addition, hospital length of stay was significantly shorter for antenatal transports ($p<0.0001$).³⁵

Other researchers have reported similar results.³⁶⁻³⁷ Although subtle differences exist due to study design, population selection, etc., the findings suggest lower mortality rates, lower measures of morbidity and reduced utilization of health care resources for the antenatal referral compared to the neonatal referral.

COST ANALYSIS

Research into the cost effectiveness of regionalization is notably lacking. There are investigations into the costs incurred with having a child in newborn intensive care as well as costs incurred with rearing a child with neurologic and developmental sequelae.³⁸⁻³⁹ Unfortunately, little work has focused on the resource savings from perinatal regionalization.

Finkler (1979) examined the cost effectiveness of regionalization using open-heart surgery as an example. His analysis should closely parallel the perinatal example in theory. He noted that for certain specialized services, savings would occur by utilizing centralized facilities. "A major contributing factor to increasing hospital costs is the duplication of expensive capital equipment and highly trained manpower for the provision of infrequent, but highly specialized services."⁴⁰

Knox, et al. (1983) described a collaborative association between a Level II hospital and a regional Level III Perinatal Center which ultimately resulted in a substantial reduction in costs for the Level II nursery. By utilizing the center's personnel as consultants, identifying the patient risk status appropriate for each facility, establishing training needs and responsibilities, formulating quality review procedures and creating staffing privileges, both the regional center and the community hospital were able to increase census, reduce mortality, increase hospital revenues and decrease patient costs.⁴¹ Since this high-tech expensive care is required by a minority of the newborns, consolidation into regional centers becomes cost effective, especially in the current environment of limited health care resources.

OUTREACH EDUCATION

One component of a coordinated system of care which distinguishes a tertiary care center from a regional perinatal center is the provi-

sion of continuing professional education. Approaches include: (1) professionals from the regional center travel to the referring hospital and offer lectures, demonstrations, and case studies; (2) staff from community hospitals have a 'hands-on' training component in some regional centers to facilitate learning and updating intermediate care skills; (3) a one to three-day seminar, held in the regional center, offers an array of lectures explaining various policies, procedures, etc.; and, (4) a formal self-paced series of topics, guided by the regional center staff, are provided to the staff of the community hospital. It is this last approach that has received increased attention from those seeking to evaluate the efficacy of continuing educational programs.

Lazzara, et al. (1982) found a significantly lower incidence of subependymal and/or intraventricular hemorrhage (SEH/IVH) in transported infants (birthweights < 1,701 gm) from a group of hospitals participating in outreach education compared to nonparticipants ($p < 0.05$). One group participated in the regional center's continuing educational program and the second group did not. There was no difference between hospital groups in incidence of low Apgar scores, birthweight, gestational age, interval between birth and transport team arrival, incidence of hyaline membrane disease, use of volume expanders, and use of bicarbonate. In addition, participating hospitals more adequately prepared children for transport than did nonparticipating hospitals.⁴² Other investigators have reported similar results.^{43, 44}

IMPACT

The overall impact of regionalized care and its effects have been measured in a variety of ways. Several investigators have attempted to measure the extent of regionalization in an area and its cumulative impact by targeting net overall mortality over time.

Goldenberg et al. (1985) compared mortality rates for pre-regionalization to mortality rates for post-regionalization in Alabama. During the period of study twice as many infants weighing between 1000 and 2500 grams delivered in perinatal centers. This was accompanied by a decline in the neonatal mortality by approximately one-third across all birth-

weight groups. The majority of reduction in neonatal mortality occurred in the very low birthweight infants. This study suggested that regionalization resulted in shifts toward greater very low birthweight deliveries in regional centers and lower overall mortality rates.⁴⁵ Other measures of the extent of regionalization have demonstrated similar shifts in birthweight distributions specifically as a result from antepartum transports.⁴⁶

Still other authors have measured changes in cause of death.⁴⁷ Hein and Lathrop (1986) classified causes of neonatal mortality into either non-preventable (congenital malformations, extremely low weight, etc.) or preventable (necrotizing enterocolitis, birth asphyxia, intraventricular hemorrhage, persistent fetal circulation). They noted a shift in cause of death from primarily preventable causes pre-regionalization to non-preventable causes post-regionalization with the largest reductions noted in Level I hospitals.⁴⁸

A controversy that remains concerns whether the reduction in neonatal mortality demonstrated by the regional centers is actually increasing the population of children with severe handicaps who would have previously died. More pointedly, does such aggressive management of the newborn salvage a greater proportion of severely impaired infants thereby placing an increasing emotional and financial burden on the family and society?

Current research does not substantiate this criticism. McCormick et al. (1985) found that although changes in mortality have resulted in an increased survival of low birthweight and very low birthweight infants, no increases in the proportion of surviving infants with morbidity related to antenatal and intrapartum events has been observed.⁴⁹ Other researchers have reported similar findings.⁵⁰⁻⁵²

A series of studies in Canada suggests a different assessment may be required. In Toronto, prior to 1970, 75% of all infants whose birthweights were less than 1000 grams died and only 15% survived as normal children. In 1974, at the same hospital, mortality was decreased to 53%. Of the survivors, 33% had no handicaps.³⁴ More recently, 48% of infants less than 1000 grams have had no handicaps with 22% having severe functional handicaps and 29% with moderate or mild handicaps on fol-

low-up. It should be noted that morbidity was less common (15.5%) for infants born in tertiary centers compared to infants born elsewhere.⁵³

From more recent morbidity data, a greater percentage of high-risk neonates are found to have normal intelligence on follow-up in recent years. However, there is still a substantial number of children who are later found to be neurologically impaired. Although the proportion of infants with handicaps is not increasing, the absolute number of handicapped survivors may be increasing due to decreasing mortality rates. In order to access future morbidity trends and to improve our prognostic ability, a continuing emphasis upon developmental follow-up of newborn intensive care survivors is required.

CONCLUSION

In conclusion, examination of the various components of perinatal regionalization suggests regional centers must become involved in the full array of patient care services to achieve maximal impact. Each activity, in its own right, contributes to the comprehensive development of systems coordination toward a common goal. This goal or cumulative endpoint is the reduction in perinatal mortality rates achieved through risk appropriate care (antenatal, intrapartum, postpartum) in the most cost effective manner. It should be remembered that most babies can be born in a Level I or II hospital provided a normal outcome is expected. Voluntary referral of high-risk maternal and newborn patients to Level III perinatal centers will continue to be necessary to assure optimal outcomes. As Grassi (1988) stated, "Regionalization has proven to be effective in organizing and orchestrating perinatal and neonatal care delivery by ensuring quality of services, access, economic costs, and optimal outcome in a cost effective manner."⁵⁴

The concept of perinatal regionalization was started on a voluntary basis with some infusion of public funds needed to support systems aspects of regional care. The results have led to a decline in maternal and infant morbidity and mortality as reviewed.

The 1980s, however, have seen two significant changes in the national healthcare system.

REGIONALIZED PERINATAL CARE

First, many Level III hospitals have incurred significant costs in the care of indigent high-risk mothers and infants with concurrent losses in reimbursement for care. This has strained hospital resources resulting in cost shifting to other inpatients with medical insurance. Second, there is more competition for patients between hospitals which has resulted in less willingness to refer high-risk patients from Level I or II hospitals to the regional perinatal center. In fact, many hospitals have come under an imperative to market the ability to provide high-risk care, sometimes duplicating services.

In the future, quality perinatal programs must prove that they are not only efficient but also cost effective. The relationships between Level I and II hospitals and the regional perinatal center need to be improved. Referral of mothers and babies to the appropriate level of care must be encouraged solely on the basis of health risk.

Future efforts must continue to encourage and support active participation from physicians and hospitals in South Carolina's current efforts toward regionalized perinatal care. Significant reductions in mortality can and will be achieved through such activities. □

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Editorial

Dr. Sasser's address before the House of Delegates at this year's annual meeting drew wide admiration, prompting its publication here in its entirety.

Guest editorials reflect the opinion of the author and do not necessarily reflect the opinion of the Editorial Board or the leadership of the South Carolina Medical Association.

—CSB

THE ESSENTIAL HEALER

What if you could take away all the contemporary trappings of medical practice?

What if you could take away the third party invasion that swirls around us, confusing and complicating every step of the therapeutic encounter between doctor and patient?

What if you could take away the confounding burden of governmental regulation that defines and directs every clinical and moral decision we make on behalf of those for whom we care?

What if you could take away the explosion of technology that, while opening up endless vistas for progress, overwhelms us with its insatiable need for knowledge and expertise and enslaves us with its mandate for use, while filling our lives with apparently unsolvable moral dilemmas?

What if you could take away: our guilt for helping to create the most expensive health care system in the world which still fails to provide access to care for a third of its people; our anxiety over the constant threat of litigation that drives us to practice a kind of defensive medicine which seems, at times, insane; our greed, that leads us to decry a reimbursement mechanism which distributes health care dollars in idiotic ways, and then to turn around and charge \$200.00 or \$2,000.00 for a 30-minute procedure, and then justify that charge on the basis that the very same idiotic reimbursement mechanism we so loudly condemn will pay it?

Well, we spend much of our energy and time each day with these issues, but for the next 15 minutes, I would like for you to put them aside.

To do this, I want you to take one minute to close your eyes and relax—now visualize a very nice file cabinet. Now take each one of these issues and place them in a manila folder: first, the third parties; then government regulations; now technological advances; now miscellaneous aggravations of modern medicine. Put them each in their appropriate file and place them in the drawer. They will be safe there and you can come right back to them in just a few minutes. But for now, you will put them away in a safe place. Now open your eyes. It is important to put all these issues and feelings aside because what I want to talk about is the nature of medicine without the ornamentation.

For if we could take all of this away, what would be left? What is it that is truly unique about being a healer? What is so special about us, about what we do? This is more than just a rhetorical question, because, like never before it's so easy to see; the trappings that help identify the physician of the '80s are already disappearing. You know as well as I that the superstructure of medicine that I encountered in internship in 1967 is long gone—And guess what? That of the '80s will go much faster. None of these things are permanent aspects of what we do and who we are. What is permanent is those things that healers of every culture have been doing for thousands of years. What are our special gifts? They are indeed gifts and as we identify them, bring cause for celebration.

First and foremost among our gifts is the awareness that we are not ourselves healers;

only instruments. The more we explore the mysteries of life, the more we come to marvel at the incredible power of the human body to heal itself. Only from our perspective, that of the medical scientist, can it be fully appreciated, that more and more our technical skills are being employed to harness and unleash healing potential already in place. And as we are filled with awe over the creation, the design, we are led to look beyond, in even greater wonder, to the Creator; the Designer. The writer of the 139th Psalm, writing specifically for the modern scientist, says it like this: "You made all the delicate inner parts of my body and knit them together in my mother's womb. Thank You for making me so wonderfully complex. It is amazing to think about. Your workmanship is marvelous—and how well I know it. You were there while I was being formed in utter seclusion!"¹ Another translation says: "I will praise thee; for I am fearfully and wonderfully made."²

Secondly, this awe grows as we recognize *our place* in the design, our own divine calling, our "Vocatio Dei." Not everybody can do what we do. Not everyone receives a divine call to be a healer. But that divine call doesn't often take the form of a "Burning Bush" or a "Damascus Road" experience. In fact, it more often is just the opposite kind of call. For example, I decided I had what it takes to be a doctor when my brother invited me down for a medical school weekend. He showed me through the anatomy lab at MUSC and I didn't throw up, then took me to one of the wildest parties I have ever seen and I thought "Hey, I can handle this!" But why are you a doctor? What really brought you here? Was it a pathological rescue neurosis? Does it irritate you when someone pays you for your advice and then refuses to take it? It does me. Was it fear of dying? You know most health professionals score high on this in psychological testing, the theory being that we can maintain the illusion of control over our own mortality by exercising some control over that of others. This was high on my agenda. In fact, I have already informed my family that my tombstone epitaph should read: "He went out kicking and screaming and was an embarrassment to us all." Was it greed? You read the poll where, in some specialties, fully half the docs were advising their children

not to go into medicine, because "it's not worth the money." I know it's more complex than this but I must confess to you that the idea of a financially secure future was certainly a big motivator for me. What personal psychopathology drew you to such a noble profession?

But don't get me wrong. I don't say this to inflict guilt; just the opposite. You see, it is so freeing to realize that it is not out of our perfection that we are called to be special, but our imperfection; for in each of us there exists a deep yearning to be whole. And it is just this yearning that draws us into endeavors designed to promote self-healing.³ It's as though God has called us into medicine just so we will be forced to heal those parts of our personhood that most need it. For in medicine we will have to come to terms with our rescue pathology or go nuts! In medicine our daily confrontation with the dying—especially when our patients become our friends—will break down our denial and force us to face our own mortality; and the practice of medicine will force us to confront our own greed, by placing in our care some of the most abject, dismally poor wretches on this earth. St. Augustine put it this way: "Thou movest men to praise Thee, for Thou hast made us for Thyself and our hearts are restless until they rest in Thee."⁴ It is in this manner that we are drawn by our personal imperfections toward self-healing.

And so, likewise, we are led to celebrate a third special gift: our woundedness. For over generations and cultures, it is the wounded healer to whom is given the power to heal. This principle is often overlooked and under-appreciated in our success-oriented society. It is, likewise, a complex one and rather than go into detail, I will instead give three illustrations which I think will be helpful. There is a legend in the Talmud about a Rabbi who asked the prophet Elijah when the Messiah would come. Elijah replied that the Rabbi should ask the Messiah directly and that he could find Him sitting at the gates of the city. "How will I know Him?" the Rabbi asked. Elijah replied: "He is sitting among the poor covered with wounds. The others unbind all their wounds at the same time and wait for someone to come and bind them up again. But He unbinds one at a time and binds it up again, saying to Himself: 'perhaps I shall be needed: if so I must always be

ready so as not to delay for a moment.'"⁵

Another example comes from Second Corinthians. Here, Paul is talking about a personal affliction he euphemistically calls "a thorn in my side." We don't know what the thorn is. Possibilities include blindness from trachoma, epilepsy or depression. In any case, he has prayed repeatedly to have God take away the thorn and, in God's refusal to do so, Paul discovers a timeless truth which might be termed "the paradox of power." Paul writes: "Three different times I begged God to make me well again. Each time He said, 'No. But I am with you: that is all you need. My power shows up best in weak people.'"⁶

A third example of the power of healing inherent in our woundedness comes from a one act play by Thornton Wilder called "The Angel Who Troubled The Waters." It's based on the story of the lame man and Jesus by the pool of Bethesda in the Gospel of John. A legend of the times had it that the first ripple of the waters by the wind in the morning was an Angel of the Lord passing over the pool and the first person to bathe in the pool after the ripple occurred would be healed. As a result, a great number of lame, blind and chronically ill people would come to the edge of the pool and wait for the water to move. Jesus discovers a man who has been lying there for some 38 years, probably his entire life. When Jesus asks him if he really wants to be healed, the man complains that no one will help him get into the pool first after the water is troubled, and someone else always gets there before him. Jesus tells the man that perhaps he should begin taking some responsibility for his own life, and the man is miraculously healed. Wilder's play is about a physician, broken by the endless tragedies of his own life, as well as those of his patients, who comes to the pool to be healed of his depression and guilt. The angel appears but blocks the physician just as he is ready to step into the water and be healed.

Angel: Draw back, physician, this moment is not for you.

Physician: Angelic visitor, I pray thee, listen to my prayer.

Angel: Healing is not for you.

Physician: Surely, surely, the angels are wise. Surely, O Prince, you are not deceived by my apparent wholeness. Your eyes can

see the nets in which my wings are caught; the sin into which all my endeavors sink half-performed cannot be concealed from you.

Angel: I know....

Physician: Oh, in such an hour was I born, and doubly fearful to me is the flaw in my heart. Must I drag my shame, Prince and Singer, all my days more bowed than my neighbor?

Angel: Without your wound where would your power be? It is your very remorse that makes your low voice tremble into the hearts of men. The very angels themselves cannot persuade the wretched and blundering children on earth as can one human being broken on the wheels of living. In Love's service only the wounded soldiers can serve. Draw back.

It is this very woundedness, this neurotic need we have to seek healing in the process of facilitating the healing of others, that calls us out in the night, that drives us through our fatigue, that provides us with the courage to deliver the worst of news, that gives us the strength to share in the suffering of so many. "My power shows up best in weak people."

There are several other characteristics peculiar to our vocation, such as our specialized ability to bond to our patients as a healing agent,⁸ and our ability to help our patients find meaning to their pain and suffering;⁹ but a final gift I would like to mention, which may be a part of every profession, not just medicine, is the gift of healing we can bring to each other, our colleagues. Now this is one I know a lot about. You see, I was sued for malpractice a few years ago. Now I don't know how your lawsuit affected you, but I was devastated, an emotional trauma surpassed only by the sudden death of my father when I was 11. Well, I'm in a group of four internists whose practice dates back to 1948. We are, sort of, the Smith-Barney of Conway: venerable, respected, very conservative. The other thing is, this was not a case of a plaintiff unhappy over an unsatisfactory outcome. The truth is, I blew it and it reflected on us all. But those guys cared so much for me; hardly a day passed when one of them didn't stop by after work to check on me, to commiserate with me, and to affirm me. Time and again, they made extra efforts to

THE ESSENTIAL HEALER

point out things I was doing that were good, and thus rub my badly damaged perspective and self-concept with a healing balm. In this way they surrounded me with an atmosphere of Grace, and let me know that I was loved and forgiven and valuable. We are the only ones who can do this for each other, you know, for we are the only ones who truly understand.

And so, as we continue our struggles with the vitally important, yet perishable aspects of our medical practices, try to remember, and hold on to, those qualities that are permanent and lasting. Try to remember our special vantage point that helps us marvel at the miracle of healing as no one else can; try to remember the nature of our Divine Calling, a call to wholeness. Try to remember the paradoxical power of healing inherent in our woundedness, that leads us to celebrate our human frailties; and try to remember that special gift we are given, the ability to bring healing to each other.

I would like to close with a prayer from the Aztec Indians.

*Only for so short a while, O God,
You have loaned us to each other,
because we take form
in Your act of drawing us,*

*And we take life
in Your painting us,
And we breathe
in Your singing us.
But only for so short a while
have You loaned us to each other.
AMEN.*

CHARLES G. SASSER, M.D.
8002 Myrtle Trace Dr.
Conway, S. C. 29526

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On the Cover:

HOSPITAL DELIVERY ROOM: CIRCA 1930

This month's cover pictures a "state-of-the-art" hospital delivery room, circa 1930. Nitrous oxide was the choice for control of pain, although chloroform, ether, twilight sleep, and/or barbiturates were also used. One unpleasant result of the use of chloroform in a room lighted by gas was the formation of chlorine gas which caused "paroxysms of coughing" in the attendants to delivery. The patient usually escaped this problem since she was anesthetized to such a degree that the irritating effect of the chlorine was unnoticed. In the days before air conditioning, the windows of the delivery room were usually left open in the summertime. On the hottest of days, blocks of ice were placed in front of electric fans to provide some relief. This introduction of added moisture into the air possibly prevented many disastrous explosions.

Should resuscitation of the newborn become necessary, this was accomplished by plunging him alternately into tubs of warm and cold water. At this time there was disagreement about the use of the umbilical binder, and various means of identification of the newborn were also debated. After delivery, the baby was placed in a Gatch bed, if available, with hot water bottles, or in the more modern hospitals, electric heating pads. The more fortunate of

the premature babies had access to a Hess incubator with thermostatically controlled hot water jacket.

The picture below shows a modern nursery of the same period.

BETTY NEWSOM
The Waring Historical Library

ACKNOWLEDGEMENTS

Cover Picture: Courtesy Sloane Hospital for Women, Columbia Medical Center, NY, NY.

Inside Picture: Courtesy Chicago Lying-In Hospital, University of Chicago Hospital, Chicago, IL.



IT'S 12 NOON. TIME FOR ANOTHER LIFE OR DEATH DECISION.

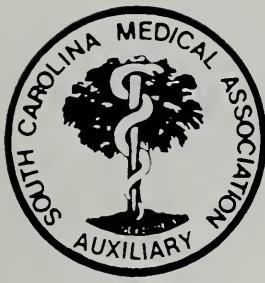


Choosing between the blue plate special and the pot luck surprise could be the most important decision you make all day. Because if you make a habit of picking high-cholesterol foods, you could be building up the level of cholesterol in your blood and increasing your risk of heart attack. And your risk of death. Remember that the next time you browse through a menu. And place your order as though your life depended on it.



American Heart
Association

WE'RE FIGHTING FOR
YOUR LIFE



Auxiliary Page

AMAA CONVENTION

The American Medical Association Auxiliary Annual Convention was held June 18-21, 1989, at the Drake Hotel in Chicago. Those attending from the SCMA Auxiliary were Robin Meehan (Mrs. William), President; Betsy Terry (Mrs. Lewis N.), President-elect; Virginia Johnson (Mrs. C. Birnie), Vice-President; Maggie Bowles (Mrs. James T.), Recording Secretary; Laurie Schwarz (Mrs. Eugene), Health Projects Chairman; Linda Galphin (Mrs. Robert), AMA-ERF Chairman; and Rosemary Cook (Mrs. David A.), Legislation Chairman.

The opening session was highlighted by the colorful ceremony and Presentation of Presidents. The meetings which followed were informative and interesting as we learned about national programs and state and county projects. A very proud moment came when our SCMA Auxiliary received three awards for our efforts during 1988-1989. We received two membership awards—one for increased membership and the other for increased PM/MS membership! We also received an award for an 83 percent increase in AMA-ERF monies raised.

The Keynote Address at the opening meeting was given by the Honorable Lynn M. Martin, member of the House of Representatives (R-16th District, Illinois). Part of her address was aimed at the importance of medical families becoming more involved in politics.

One of the most important statements Congresswoman Martin made is that not one physician serves in Congress. However, she readily admitted that serving in Congress is a career—generally 10 to 20 years of service. Not many physicians can do that, but why aren't more spouses going to Congress? It is a big mistake not to. We have the ability, the organizational skills, the experience and background. Most women tend to denigrate their abilities in the home, in the volunteer area and in work which is often part time because they are raising children, so they say, "I am *just* doing this." Forty-seven percent of Auxiliary members work in their physician spouses' offices and I bet 46 percent say, "I just work in this office." You make it hum. You are part of what we need—"humanistic health care."

Representative Martin directed us to talk to our "sisters," Republican or Democrat. In 1960, 20 women served in Congress out of 435 members. Today only 27 women serve. It is a dreadful mistake that more women do not serve. Congress needs the strength and variation that would come if we served. There are only two female Governors out of 50. We are all partners. We need cooperation. Sexism and racism are "stupid, immoral and economically indefensible."

It is time to make choices in the area of health care. We need to be there. The changes may not be good for us or for America. We need to work together to be sure the changes are right. Representative Martin challenged us to learn and to be involved and "to remember we have a new President, new Senate and new House. They have in their hands the chance to make America worse or better and with God's help and with support of people like you let's hope it is better."

BETSY TERRY (MRS. LEWIS N.)
President-elect

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INDICATIONS FOR TONSILLECTOMY AND ADENOIDECTOMY

RICHARD M. CARTER, M.D.*

J. CAPERS HIOTT, M.D.**

Tonsillectomy and/or adenoidectomy is one of the most common operations performed in the United States with about 800,000 cases per year being reported in the mid-seventies. Medical attitudes on the necessity for surgery have varied from routine removal in the pre-antibiotic era to no removal in the early seventies, to a more rational approach for selected cases in the eighties.

Tonsils and adenoids are lymphoid structures with overlying epithelium which invaginates to form crypts. The palatine tonsils lie on the lateral wall of the oropharynx, and the adenoids are in the nasopharynx. These organs are part of the immune system and may be involved in childhood and adult infections. The most common microorganism recovered from a tonsillar infection is beta streptococcus.

The symptoms of acute infection are sore throat, fever, malaise and, at times, the gutteral or "hot potato" voice, while the findings consist of large red tonsils with exudate, tender cervical nodes and foul breath. Noisy breathing may be noted in children.

In the pre-antibiotic era, the complications of suppurative tonsil and adenoid infections, such as rheumatic fever and glomerulonephritis, were so severe that tonsillectomy and adenoidectomy were recommended as a public

health measure. With the advent of antibiotics complications were reduced, routine removal was no longer justified, and surgical treatment was discouraged by many physicians. In 1984, Paradise and Bluestone reported a study which proved the effectiveness of tonsillectomy for recurrent tonsillitis.

The most common indication for tonsillectomy is recurrent tonsillitis in spite of adequate medical therapy. Four or more episodes of tonsillitis per year is an indication for surgery but any patient with chronic or persistent infection who has substantial loss of time from school or work should be considered a candidate for surgery.

Upper airway obstruction due to tonsil or adenoid hypertrophy may result in pulmonary hypertension and cor pulmonale, and is a definite indication for surgical treatment. Nocturnal airway obstruction can be critical in a sickle cell patient. Sleep apnea and blood gas abnormalities can be documented in the laboratory. A history of nocturnal apnea and loud snoring can be obtained. Stories such as "I have to prop him on a pillow" or, "I have to roll him over so he can catch his breath" are common in ENT offices. A tape recording of respiratory noises during sleep offers additional evidence of impedance. Sleep studies are not routinely done when the history and physical examination are clearly diagnostic. Adenoidectomy or T&A gives excellent results in these patients.

* 1015 Spring Street, Greenwood, S. C. 29646.

** 6 Barnett Street, Sumter, S. C. 29150.

TONSILLECTOMY

Blockage from enlarged tonsils and adenoids may produce several less dramatic problems in children such as failure to thrive, obligate mouth breathing, eating or swallowing disorders, tongue thrust syndrome and speech deficiencies.

Peritonsillar abscess, which seems to be more common in adults now than it has been in years past, is an indication for tonsillectomy. Early cases may be aborted with intravenous antibiotics such as penicillin or cephalosporins. In many cases, "ripe" abscesses are opened and drained, or aspirated through a large bore needle (#16), in the office or in the emergency room setting on cooperative patients. Some patients, however, do not cooperate because of apprehension or trismus. A "hot" tonsillectomy or emergency tonsillectomy with incision and drainage of the abscess is cost efficient, and with skilled anesthesia and meticulous surgical technique the morbidity and mortality should be no different from routine tonsillectomy. Peritonsillar abscess can be a lethal illness if untreated as has been witnessed by one of the authors. George Washington reportedly died from this disease.

Suspected malignancy of the tonsil or adenoid is an indication for excision for diagnostic purposes. Adenoidectomy as an independent procedure is done for two main indications:

1. Recurrent otitis media or chronic serous otitis media, particularly if myringotomies and indwelling tubes have failed. In about half the children age two or older, adenoidectomy has helped.
2. Hypertrophic adenoids which obstruct the posterior choana and cause mouth breathing, snoring, purulent or mucoid rhinitis and sometimes sinusitis and otitis media. The diagnosis may be confirmed with a lateral skull radiograph or fiberoptic nasopharyngoscopy.

Pre-operative care includes a history and physical examination within six weeks of surgery, recording any tendency toward bleeding or bruising in the patient or family. Systemic disease is noted and appropriate consultation obtained if needed. Indications for surgery are

documented. Every patient is examined for sub-mucous cleft palate. Second surgical opinions, when desired by the patient or the insurer, should be done by a Board Certified Otolaryngologist. Appropriate hematological and roentgen measures are carried out at the discretion of the physician.

Tonsil and adenoid surgery is currently being performed in both inpatient and outpatient surgical settings. Post-operative care requires recovery room observation. "Observation should be continued until the physician considers the patient adequately recovered from surgery and safe to be discharged. Occasionally this may require several days in the hospital. No standard fixed period of observation is safe for all patients. Intensive care may be needed for selected cases."⁴ Prior to discharge the patient should be alert, have a good airway, no evidence of bleeding and should be taking adequate fluids by mouth to maintain good hydration. Nausea, vomiting and pain should be under control.

Aspirin and other non-steroidal anti-inflammatory drugs should be avoided post-operatively since they alter the blood clotting mechanism.

Tonsil and adenoid surgery has been performed with varying intensity and indications for many years. Excellent benefits can be obtained in properly selected and carefully managed patients. □

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CURRENT TECHNIQUES IN EVALUATION OF A NECK MASS

ROBERT C. JORDAN, M.D.*
AUGUSTUS J. GOFORTH, III, M.D.**

The patient presenting with a lump in the neck is a unique challenge to the clinician. To ensure the best possible care of the patient, the temptation to schedule an open biopsy as the initial step in evaluation of the mass must be avoided and an orderly diagnostic determination undertaken.

Along with past and family history the pertinent data includes the age and sex of the patient, exposure to known carcinogens, the time course of the development of the mass, fluctuation in size, history of recent febrile illness and exposure to a chronic or acute illness. A well-defined history will direct the physical examination and the remaining procedures.

A thorough physical examination of the head and neck is essential, but not limited to this region, since metastatic malignancies from lung, kidney, ovary, prostate, and other areas beneath the diaphragm are well documented.¹ Similarly, a low, lateral neck mass has been noted as the presenting sign of metastatic thyroid carcinoma.²

Examination of the ear, nose, pharynx, and larynx as well as palpation of the mass, noting its consistency and mobility, is first performed, followed by examination of the remainder of the neck and a search for less obvious masses. Indirect mirror examination of the nasopharynx, larynx, hypopharynx, and base of tongue, along with direct observation of the tonsils, nose and sinus ostia can be supplemented with outpatient rigid and flexible fiberoptic instrumentation of the upper aerodigestive tract. A preponderance of primary carcinomas, origins of cervical cysts and sinuses, causes of salivary gland enlargement and upper aerodigestive tract infections contributing to a neck mass are revealed by this method.

The logical evaluation of the neck mass should not consist of a myriad of tests without a rational sequential approach. If an obvious origin is found by head, neck and general physical examinations, the primary lesion is dealt with in conjunction with the neck mass. Fine needle aspiration cytology of the mass may be helpful in better defining the relationship with the primary lesion, and in squamous cell carcinoma has proved to be highly specific and sensitive in the diagnosis of metastatic disease to the cervical lymph nodes.³

When no obvious primary lesion is identified, a more extensive workup is pursued, including at a minimum roentgenograms of the chest and sinuses, complete blood count and various other blood tests as indicated, such as monospot, ASO titers, serum calcium and thyroid profile.⁴ Computed tomography (CT) of the neck may be highly useful in diagnosing neck disease, however it is much more accurate in ferreting out metastasis in a patient with a known primary head and neck cancer.⁵ Magnetic Resonance Imaging (MRI) is a similar aid, and CT or MRI is employed to further assess the extent of neck disease in a patient with a known primary lesion. CT or MRI is useful in the detection of small nodes, particularly in individuals with short, fat or muscular necks (Fig. I). These studies are essential for the detection of parapharyngeal metastases and can frequently determine tumor encroachment on the carotid system, obviating arteriography in many advanced cancer cases.

With an unknown primary source, the sensitivity and specificity of needle aspiration cytology in diagnosing neck disease has been high.^{6,7} The practice is generally safe and well tolerated by patients on an outpatient basis. The fine needle size mitigates against tumor spread in the case of malignancy. When the aspirate is benign or nonconclusive, close followup is continued if cancer remains under suspicion.

* Suite 101, 175 Charlois Blvd., Winston-Salem, N.C. 27106.

** 317 St. Francis Dr., Suite 170, Greenville, S.C. 29601.

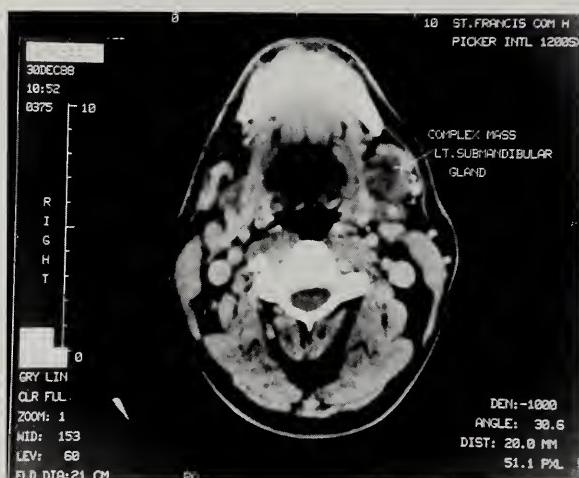


FIGURE 1

In the setting of metastatic head and neck carcinoma, biopsy of the mass prior to identification and treatment of the head and neck primary neoplasm leads to increased morbidity and mortality by expanding the rate of local recurrence, distant metastasis, and greater exposure to wound complications after subsequent definitive neck dissection.⁸ To avoid such problems, an operative search for the primary tumor is undertaken prior to the biopsy. The procedure is commonly performed by an otolaryngologist and comprises upper aerodigestive tract endoscopy and blind biopsies of high risk areas (nasopharynx, tonsils, base of tongue, pyriform sinuses) in the event that no primary is noted.⁴ Definitive treatment of the metastatic lymph nodes and the primary, if identified, is then initiated.

Provided a primary lesion is not recognized and the nature of the cervical mass remains unknown despite a thorough workup, an open biopsy is planned. The incision is devised so that a radical neck dissection may be completed in case carcinoma is documented by frozen section study. In the presence of a supraclavicular enlargement, further workup entails intravenous pyelogram, upper gastrointestinal series, barium enema and/or colon-

oscopy,⁴ pursuing a primary lesion.

If precise substantiation of carcinoma beginning in the cervical lymph nodes is lacking, then failure to initially locate the principal tumor requires constant reevaluation of the patient's status.

CONCLUSION

The evaluation of a lump in the neck follows a logical sequence dictated by location of the mass, makeup of the patient, duration of symptoms, and level of suspicion of malignancy. Initial open biopsy before completion of a diagnostic workup can lead to complications and increased morbidity and mortality. Thin needle aspiration cytology and upper aerodigestive track endoscopy with directed or blind biopsy are valuable tools in the evaluation process. An open biopsy in the case where thorough workup fails to yield a diagnosis should be performed by a surgeon prepared to complete a concomitant radical neck dissection if the histologic findings reveal carcinoma. □

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MULTIMODALITY TREATMENT OF ADVANCED HEAD AND NECK CARCINOMA

L. S. CARLSON, M.D.
R. STUART, M.D.
J. D. OSGUTHORPE, M.D.

Nearly a third of patients with squamous cell carcinoma of the head and neck present with advanced lesions.¹ These lesions are characterized by large bulky primary tumors with or without extensive nodal metastasis which may themselves be large (Fig. 1). Often these tumors are unresectable at time of presentation. Treatment with surgery or radiation therapy results in low survival rates, with most patients dying of local or regional recurrence of tumor. In this paper, we will discuss recent developments in combined modality treatments which are designed to improve this dismal situation.

Several factors contribute to the poor prognosis in these patients. Primary tumors that have eroded bone or metastasized to the neck require complex and often massive resections, when they are resectable at all. Large solitary or multiple lymph node metastases predict a higher likelihood of recurrence. In addition, patient factors are important: these patients often have unhealthy lifestyles, abusing tobacco and/or alcohol; they may be malnourished; many have neglected oral hygiene; and, frequently, they have denied their symptoms and delayed medical care. Often such patients are poorly motivated to undergo aggressive and complicated treatment protocols.

Treatment of advanced head and neck cancer with surgery and/or radiation therapy results in survival rates of approximately 10-20%.² Radiation therapy has been used both preoperatively and postoperatively. Preoperative radiation has the advantage of decreasing tumor size and making resection possible in some cases. It can also sterilize the

tissue surrounding bulky tumor masses, so that margins of resection will be free of tumor. However, relatively low doses of 45-50 Gy must be used so as not to make the surgery difficult. Even so, postoperative complications, such as delayed wound healing, are increased.

Postoperative rather than preoperative radiation therapy has been given more often in recent years. Fields can be tailored to give higher doses in the areas of greater tumor involvement. However, all tissue in the resected area has been disturbed, and the lymphatic channels may shunt outside of their normal pathways. Initial treatment fields are generally quite large.



FIGURE 1. Patient with advanced neck node metastases.

* From the Department of Radiation Oncology (Dr. Carlson), the Division of Hematology/Oncology (Dr. Stuart), and the Department of Otolaryngology and Communicative Sciences (Dr. Osguthorpe), Medical University of South Carolina, 171 Ashley Avenue, Charleston, S.C. 29425-2242.

In recent years, several investigators have used chemotherapy for advanced head and neck tumors. Dramatic responses with single agents and multiple agents have been seen, particularly with drug combinations which include cisplatin, the most active single agent against head and neck cancer.³ This drug has also been found to be synergistic with radiation therapy. Other drugs showing synergy when combined together with radiation therapy, though not with undue toxicity, include 5-fluorouracil (5-FU), and etoposide (VP-16).^{4, 5}

Several recent studies have been published, describing the outcome of patients treated with combinations of chemotherapy, radiation therapy and surgery. There is much controversy in this recent literature, for some studies have shown increased survival with the multimodality treatment, while other studies have shown no benefit, or even lower survival.⁶ Several factors make an analysis of these studies quite difficult. First of all, cancer in the head and neck area can arise in many sites, with each site having its own propensity for spread to lymph nodes in various pathways. Thus, the prognosis is inherently different for tumors of the same stage that have arisen in different sites.

In addition, the staging system that is universally accepted by the American Joint Committee for Cancer is quite well defined and useful when speaking of each tumor by its TNM classification.⁷ However, when discussing stage, early primary tumors (T_1, T_2) with limited nodal spread (N_1) are included in the same stage category (Stage III) as late tumors (T_3) with limited nodal spread (Fig. 2). Since many of the recent treatment studies include Stage III and/or IV tumors, those with higher proportions of these early lesions might be expected to do better. Often, tumors are not specified in these studies beyond the general stage grouping.

Moreover, there has been a marked lack of uniformity in the design of the recent trials. Multiple combinations of chemotherapeutic agents are described, and often they are given in different doses. Some studies do not specify the radiation therapy dose or the fractionation schedule which was used. The sequence of delivering chemotherapy, irradiation and surgery is quite variable in these studies, although

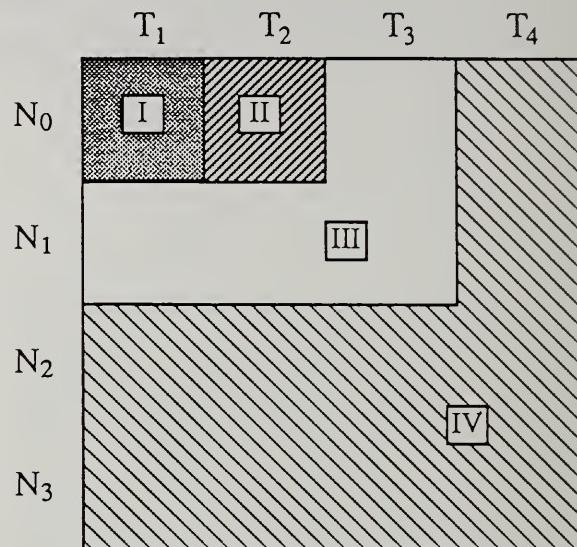


FIGURE 2. American Joint Committee Cancer Staging Grouping.⁷

many have given the chemotherapy first, followed by surgery and/or radiation therapy. Table 1 illustrates various strategies that have been used.

All of these studies have been reported with relatively short follow-up. And few, if any, report the number of patients which have been salvaged with surgery or radiation therapy when combined modality treatment has failed. This is particularly important, because surgical salvage following chemotherapy or radiation therapy can be successful.

Surveying recent literature leads one to the inevitable conclusion that there is a need for a national cooperative trial to determine the optimal combination of treatment for advanced head and neck tumors. However, nonrandomized, small pilot studies are still of benefit, for it is from these that we determine the toxicity of combined modality therapy, as well as gain some indication of efficacy. At MUSC, we are currently using a treatment protocol for patients with advanced head and neck carcinoma. This protocol uses cisplatin, 5-FU, and etoposide given simultaneously with pre-operative radiation therapy.

The MUSC pilot study was devised to take advantage of the synergistic effect of these drugs with radiation therapy. In addition, because chemotherapy and radiation therapy are given concomitantly, it is hoped that there will

TABLE 1

Strategies for Treatment of Advanced Head and Neck Cancer

<i>Initial Therapy</i>	<i>Adjuvant or Completion Therapy</i>	<i>Salvage Therapy</i>
Surgery		Radiation Therapy
Radiation Therapy		Surgery
Surgery	Radiation Therapy	
Chemotherapy	Surgery	Radiation Therapy
Chemotherapy	Radiation Therapy	Surgery
Chemotherapy and Radiation Therapy (Concomitant)	Surgery	

be less likelihood of the local tumor continuing to seed the blood stream with micrometastases, a theoretical explanation which has been given to account for lack of improvement in survival in studies which use sequential chemotherapy and radiation therapy. We also feel that we are using an optimum drug combination, combining three agents which have all been shown to be synergistic and effective against these tumors. Pre-operative radiation therapy (50 Gy) is begun simultaneously with chemotherapy, so as not to postpone the initiation of local regional treatment. Surgery to remove all tissue which was initially affected is performed to insure removal of residual microscopic nests of disease. When surgery is not possible, radiation therapy is continued to higher, definitive doses.

Results in our pilot study are very early (15 patients to date), but to date the toxicity does not appear to be prohibitive, and we have been impressed with the response of some of our patients. It is hoped that once the pilot study is completed and analyzed, we will be able to

embark on a multiinstitutional randomized trial of combined modality therapy for advanced head and neck tumors. □

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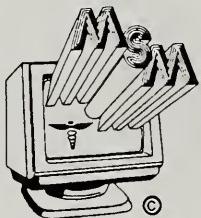
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INHALANT ALLERGIES: SKIN VERSUS IN VITRO TESTING

GIEN HOANG, M.D.*

ROBERT G. MAHON, JR., M.D.**

Inhalant allergic diseases affecting the ears, nose and throat comprise a large segment of the general otolaryngologist's practice and is a legitimate concern of his patient care. Skin endpoint titration (SET), an in vivo test, and radioallergosorbent test (RAST), an in vitro test, are two of the diagnostic techniques available and commonly practiced by otolaryngologists—head and neck surgeons. As reported by the Council on Scientific Affairs of the American Medical Association (JAMA; 1987, 258:1506), before immunotherapy "patients should be shown to have an IgE-mediated reaction to the allergen by skin testing or by demonstrating serum IgE antibodies by radioallergosorbent test or other in vitro techniques."

SKIN ENDPOINT TITRATION

Skin Endpoint Titration (SET) makes use of a set of solutions with the antigen concentration decreased by a factor of five in each vehicle in order to estimate the degree to which a patient is sensitive to any particular allergen and, hopefully, to allow an appropriately potent initial starting dose for immunotherapy. To prepare the test set, six vials each with 4 ml. of diluent is prepared. One ml. of antigen concentrate (usually 1:20 wt/vol) is added to the first vial to make Solution #1 1:100 solution, and one ml. of #1 is then mixed with the next vial to make a 1:500 reduction (#2). This progression is continued to Solution #6, 1:312,500, which is the starting dosage, since no significant systemic reaction is known to occur at this concentration. Many physicians prefer to begin with a screening panel commonly containing 1-2 grasses, weeds and tree

pollens prevalent in the area, extracts of house dust, mites, 2 molds (*Alternaria* and *Hormodendrum*), and dog and cat danders if indicated by exposure.

Placement of the test wheal is critical. It must be intradermal and exactly 4 mm. When read in 10 minutes a negative response is no reaction, disappearance of wheal or an increase in size to no more than 5 mm. With this survey Solutions #5, #4, and #3 are placed simultaneously about 2 to 3 cm. apart. After 10 minutes the ideal positive in an allergic individual would be for the wheals to increase to 5, 7, 9 or 7, 9, 11 for Solutions 5, 4 and 3 respectively, the end point being 7 mm. which is 2 mm. larger than the negative 5 mm. swelling. In 70 percent, there is this increase, but in the other 30 percent, aberrant or atypical flares require reassessment.

RAST

The radioallergosorbent test was developed in the early 1970s following discovery of the exact nature of IgE in 1967, and detects specific IgE antibodies in the serum. Since the initial commercially available RAST addition, several changes have improved its sensitivity, one of which is the modified RAST test (MRT) devised by Nalebuff and Fagal to approximate the scoring of the Rast systems to the results of SET. About 85 percent of the RAST tests prevalent in this country rely on the modified RAST (Table I).

Modified RAST is expensive (from 25 to 50 percent more than skin endpoint titration). To circumvent that drawback, a RAST mini-screen is available typically containing six major inhalant allergens, and it is claimed that less than two percent of atopic patients have a negative reaction to such a panel. If the initial screen is positive, additional tests are performed by an in vivo or in vitro method, with the assurance that the subject has inhalant allergies and such testing (and cost) is warranted.

* Department of Otolaryngology and Communicative Sciences, Medical University of South Carolina, Charleston, S. C. 29425-2242.

** 701 Arlington Avenue, Greenville, S. C. 29601.

TABLE I
Modified RAST Scoring System

Class	Count*	Interpretation
0	250-500	Negative
1/0	501-750	Equivocal
1	751-1,600	Usually positive
2	1,601-3,600	Positive with increasing levels
3	3,601-8,000	of specific IgE
4	8,001-18,000	
5	18,001-40,000	

* Counts obtained when time control of 25 units is run at 25,000 counts.

From "Introduction To Otolaryngic Allergy," Gary D. Becker, M.D., Editor. AAO-HNS Foundation 1986.

actions, and the results are affected by certain medications such as antihistamines.

The RAST tests have fewer antigens commercially available and are less sensitive and more expensive than skin tests, but offer convenience, especially with working individuals, children and those with skin problems. There is also no danger of constitutional reactions or interference by medication.

Skin endpoint titration and RAST tests are no more than tools in the evaluation of the allergic patient which need to be correlated with other findings in the physical examination and history. If immunotherapy is indicated, the antigen dose should be serially increased to the maximum tolerated or symptom-relieving level, whichever comes first. □

COMPARISON BETWEEN SAT AND RAST

The advantages of skin endpoint titration are that it requires less expensive equipment, offers expanded possible antigens, and is more sensitive. In other respects, it may give additional false positives, and the individual has to be present—thus missing work, with the discomfort of multiple sticking. There is slight bleeding at times, danger of constitutional re-

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ENDOSCOPIC TECHNIQUE FOR SINUS SURGERY

JUAN A. BROWN, M.D.*
L. RONALD HURST, M.D.**

New technical development, particularly in engineering and optics, continues to change the concept of modern medicine and surgery. Otolaryngology is not the last of those which have made use of new equipment for diagnosis and therapy, derived specifically through the combined modalities of nasal endoscopy and high resolution, computerized tomography of the sinus cavities. Despite the fact that the basic surgical principle is to remove all obstructions, visualization or surgical approach to the natural openings of the sinuses has been deficient. Diagnostic tools to evaluate sinus disease in the past have been limited and consisted primarily of anterior rhinoscopy including anterior microscopic visualization and conventional roentgenograms.

Messerklinger¹ published his first works in English in 1978, documenting the findings and results of endoscopic surgery. Utilizing the concept of mucocilia clearance of secretions from the sinuses, he proved that localized obstruction occurred whenever two mucosal layers contacted each other. This persistent mucosal contact is secondary to hyperplasia following infection, allergy or anatomic malformations, either developmental or traumatic (Table 1). Relatively small areas of infection and obstruction may be the cause of persistent sinus symptoms, usually centered in the middle meatus, infundibulum and anterior and middle ethmoids. This area has been termed the osteomeatal unit and in the immediate area are the meninges, orbit and several vessels including the carotid artery. Access is extremely restricted, and the surgical approach in the past has been difficult and complicated.

The symptomatology consistent with chronic sinus involvement comprises purulent post-nasal drainage with halitosis, headaches, fever,

TABLE 1

Etiology of Chronic Obstruction of the Osteomeatal Unit

- A. Nasal polyps
 - 1. Allergic
 - 2. Infection
- B. Turbinate engorgement
 - 1. Allergic
 - 2. Infection
- C. Turbinate enlargement
 - 1. Congenital
 - 2. Allergies
- D. Deformity of uncinate process; ethmoid bulla
 - 1. Congenital
 - 2. Traumatic
- E. Deviated nasal septum
 - 1. Congenital
 - 2. Traumatic
- F. Fractures, (Leforte, nasal)
 - 1. Acute
 - 2. Chronic

periorbital pain and glabella pressure, as well as congestion of the nasal vestibule. Pulmonary problems of asthma, bronchitis, recurring pneumonia and chronic cough are frequently evident (Table 2). The diagnosis of chronic sinusitis is accomplished by obtaining a significant history of recurring sinus complaints. The physical examination reveals an obstructive phenomenon such as a deviated septum, polyps, turbinate engorgement, purulent drainage, though it can occasionally be completely normal. Conventional roentgenograms may be reported as chronic sinusitis with thickened mucosa, cysts, polyps, pansinusitis or normal, and seldom fully delineate the ethmoid sinuses or identify the blockage within the osteomeatal unit.

In the face of negative clinical and roentgen findings, if a patient's history is compatible with sinusitis, the new diagnostic tools of which endoscopic appraisal of the patient in the office and coronal CT views of the sinuses with particular attention to the osteomeatal units are available.^{2, 3} Coronal positioning of the patient for the CT provides an exact

* 1303 McLees Road, Anderson, S. C. 29621.
** 397 Serpentine Road, Spartanburg, S. C. 29303.

TABLE 2

Symptoms of Chronic Sinuses Disease

- A. Congestion/obstruction
- B. Secretion, halitosis
- C. Fullness/pressure—mild to severe pain
- D. Headache—temporal, frontal
- E. Dental pain
- F. Chronic pulmonary conditions
 - 1. Chronic cough
 - 2. Bronchitis
 - 3. Asthma
 - 4. Recurrent pneumonia

method of delineating an obstructive process of the osteomeatal unit,⁴ which is refined by direct endoscopic visualization with the patient in the sitting position under topical anesthesia. Neither of these techniques is invasive or painful, and each is performed on an outpatient basis.

Endoscopic sinus surgery is employed to remove the obstruction within the osteomeatal unit when medical therapy fails to eliminate the symptoms. Severe diseased sinus mucosa reverts to its normal state once aeration and mucosal clearance have been restored. The authors have operated under general anesthesia in 225 cases with the patients leaving the outpatient facility in two to three hours after surgery and returning to work three to seven days later. Nasal packing is not generally required. Local anesthesia with IV adjunctive therapy may be administered depending on the patient's and surgeon's preferences. Classical major sinus methods such as Caldwell-Luc, osteoplastic frontal sinus operations and total ethmoidectomies are now less frequently necessary.

Endoscopic surgery permits the resolution of multiple sinus cavity disease including bilateral involvement as one procedure. Post-operatively, the patient has little discomfort and disability without any sensory loss or cosmetic changes, i.e., bruising or periorbital edema. The complications of endoscopic or any other sinus surgery are directly related to the specific anatomic area and can be life threatening,⁵ as denoted by orbital emphysema, hematoma,

TABLE 3

Complications of Endoscopic Sinus Surgery

- A. Major
 - 1. Hemorrhage
 - 2. CFS Leak
 - 3. Blindness
 - 4. Meningitis
- B. Minor
 - 1. Orbital hematoma
 - 2. Orbital emphysema
 - 3. Nasolacrimal duct stenosis

nasolacrimal injuries, CFS leak, meningitis and blindness (Table 3).

In summary, chronic sinus disease may be a meaningful factor in the lifestyle of patients. It can interfere with physical health as well as their occupations and emotional outlook. Medical therapy, in conjunction with allergic evaluations, remains the primary mode of treatment. The new diagnostic techniques help further in assessing sinus disease, and endoscopic functional surgery promises calculable benefits with less morbidity than conventional open surgical techniques, in accord with the trend toward minimal invasive surgery. Three complementary developments have contributed to this new approach:

- (1) high resolution CT scans in the coronal positions,
- (2) advanced endoscopic instruments improving the visualization and surgical treatment of the osteomeatal units, and
- (3) identification of the anterior ethmoid osteomeatal unit as the underlying site of most sinus problems. □

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SCMIA NEWSLETTER

SEPTEMBER 1989

MEDICARE UPDATE

Applicability of MAAC When Medicare is Secondary Payor

The SCMA has received clarification from Blue Cross and Blue Shield of South Carolina that nonparticipating physicians may charge more than their MAACs when (1) a beneficiary has other primary insurance and (2) the physician agrees to accept this insurance as payment in full without collecting any copayment or deductible payment from the patient.

Medicare: ICD-9-CM Coding

To assist physicians in finding an appropriate diagnosis code, AMA will be publishing abstracted sets of the ICD diagnostic codes based on medical specialty groupings as part of the CPT 1990 minibook series. A limited number of complete ICD manuals has been obtained by AMA. These are available for \$38.40 to AMA members. Manuals may also be purchased from the Government Printing Office for \$43. AMA members may place VISA or Mastercharge orders for the just-updated publication by calling 1-800-621-8335. The publication number is OP-219 (ICD-9-CM International Classification of Diseases, 9th Revision, Clinical Modification, 3rd edition). Other orders should be directed (with prepayment in full) to AMA, OP-219, PO Box 10946, Chicago, IL 60610-0946.

Medicare Information Booths

In a continuing effort to provide information and education to the Medicare community, Medicare will be manning a booth at the Anderson County, Coastal Carolina and South Carolina State Fairs this fall. Detailed personal information concerning Medicare procedures and inquiries regarding specific claims can be provided to everyone who visits the booths. The schedule is as follows:

Anderson County Fair (Anderson): September 15-23
Exhibit Building

SC State Fair (Columbia): October 12-22
Moore Building

Coastal Carolina Fair (Ladson): October 26-November 4
Exhibit Building

MEDICAID UPDATE

As part of the statewide efforts to encourage physicians to care for Medicaid patients, the Health & Human Services Finance

Commission has concentrated on improving claims processing, reimbursement rates and the audit procedures.

Ms. Carolyn Jordan, Director of Program Integrity at the Finance Commission, has prepared an "Overview of Medicaid Postpayment Review Process," to help physicians better understand why the Finance Commission conducts audits, how physicians are selected to be audited and how the audit process is conducted. Of special interest is the fact that a large volume of Medicaid patients does not generate an audit. For a copy of Ms. Jordan's overview, contact Kim Fox or Joy Drennen at SCMA Headquarters.

If you have any suggestions/problems with Medicaid that your staff has been unable to resolve with the Medicaid provider representatives, please call Barbara Whittaker at the SCMA.

PRO UPDATE

Carolina Medical Review (CMR) wishes to clarify information published in last month's "SCMA Newsletter" concerning the Quality Intervention Plan (QIP) which had been reprinted from an AMA newsletter. The QIP sets forth three levels of medical mismanagement (HCFA terminology) which are determined based on either no potential for significant adverse effects, potential of significant adverse effects or significant adverse effects. Each level is assigned a severity weight.

Each quarter, the PRO will profile the total weights accumulated for reviews completed during that quarter for each physician or provider. The total severity weight will determine the type of corrective action to be considered for implementation. The PRO must consider initiation of corrective action when any physician or provider receives a total weighted score of three or more. In general, interventions will be initiated based on CMR computed HCFA severity level weights and weighted triggers for intervention. However, the triggers for intervention can be overridden by quality review panels. Flexibility in determining what intervention is appropriate is paramount to prevent potential for perception that the point system is an arbitrary mechanism.

PHYSICIAN OWNERSHIP OF HEALTH FACILITIES TO WHICH REFERRALS ARE MADE

Under current federal law, physicians are not explicitly prohibited from maintaining an ownership interest in most types of facilities to which they may make patient referrals. The only existing federal prohibitions that explicitly bar physicians from self-referring patients involve providers of home intravenous drug therapy under the Medicare Catastrophic Coverage Act of 1988 (PL 100-360), effective January 1, 1990, and home health agencies in cases in which federal law prohibits physicians who own more than five percent of the agency from certifying the plan of treatment for home health care.

Laws exist, however, to prohibit inappropriate referrals. Congress included in the Social Security Amendments of 1972 (PL 92-603) a provision that outlawed payments for referrals of business payable under Medicare and Medicaid. The penalties were a misdemeanor conviction, one year of imprisonment and a \$10,000 fine. Five years later, in the Medicare/Medicaid Anti-Fraud and Abusement Amendments of 1977 (PL 95-142), Congress expanded the law to cover any "remuneration" that sought to induce referrals of patients or business under the two programs, and strengthened the penalty to a felony conviction with up to five years in prison and \$25,000 in fines. In the Omnibus Reconciliation Act of 1980 (PL 96-499), Congress acknowledged the ambiguity of the earlier statute by providing that conduct is unlawful only if it is undertaken "knowingly and willingly."

In April, 1989, the inspector general issued a "fraud alert on joint ventures," making clear that an investment relationship even with no explicit tie to referrals may violate the law. This willingness to look behind the legal structure of a venture involving physicians to determine whether its purpose appears to be the inducement of referrals is also reflected in the few relevant federal appellate court cases decided in recent years. Representative Stark's legislation proposes to further restrict/prohibit referrals of Medicare patients. This legislation is pending Congressional action.

SCMA ENDORSES DIAL ACCESS CONTINUING MEDICAL EDUCATION

The SCMA Board of Trustees, on the recommendation of the CME Committee, has endorsed the Dial Access Continuing Medical Education program of the Southern Medical Association.

Since 1978, more than 250,000 physicians have used a Southern Medical Association-sponsored toll-free hotline to get instant access to the latest medical information, 24 hours a day, 365 days a year. After paying a nominal subscription fee, the physician receives a catalog containing over 800 audiotapes on specific clinical topics catalogued by discipline and number. The user tells the operator his or her ID number, the number of the tape he wishes to hear, and then listens to a six- to eight-minute lecture. If he requests it, a typed version will be sent to him within a few weeks. The tapes are eligible for hour-for-hour credit in category 2 of the AMA's Physician Recognition Award and Prescribed credit of the American Academy of Family Physicians.

For information on subscribing, contact Bruce J. Bellande, Ph.D., 1-800-423-4992 or write the Southern Medical Association, PO Box 190088, Birmingham, AL 35219-0088.

MEDICAL LIABILITY PURCHASING GROUP, INC.

In February of this year, SC physicians were alerted that the Medical Liability Purchasing Group, Inc. had been instructed to

discontinue the solicitation of medical liability coverage to residents of SC until the company (The Casualty Assurance Risk Insurance Brokerage Company) was duly qualified and the purchasing group properly registered in this state. In June, the Indiana Department of Insurance obtained an injunction against the Medical Liability Purchasing Group, Inc., of Indiana. The injunction noted that the information contained in the solicitations in Indiana was false in several respects and induced health care providers to purchase insurance from an offshore company which has not been admitted to do business in any state.

UPCOMING CONFERENCES

The AMA is cosponsoring a series of comprehensive one-day seminars on "Managing Medical Wastes" to guide physicians and other healthcare professionals in implementing effective medical waste management programs. Other cosponsors are the American Society of Hospital Engineering and the American Society for Healthcare Environmental Services.

The program will apprise physicians and others of requirements of the Medical Waste Tracking Act and of the repercussions that can result from improper waste handling.

One such program is scheduled for October 18 in Charlotte, NC. Registration fee is \$150 for AMA members. To register, call 1-312-940-2138. For more information, call the American Hospital Association, 1-312-280-5223 or 3365.

PUBLICATIONS AVAILABLE

Copies of the 1989 edition of CURRENT OPINIONS of AMA's Council on Ethical and Judicial Affairs are now available. AMA members may obtain a single complimentary copy by calling toll free 1-800-621-8335. Single additional copies are \$8 each for members and \$15 for non-members.

CAPSULES

Three distinguished South Carolinians have been honored by the SC Chapter of the American Academy of Pediatrics. Michael D. Jarrett, DHEC Commissioner, received the Child Advocate of the Year Award for his contributions to the health and well-being of South Carolina's children. The Career Achievement Award was presented to Casper E. Wiggins, MD, for his superior accomplishments in the field of medicine. W. John Langley, MD, received the President's Award for his outstanding service to the chapter, its activities and the children of the state.

EXTERNAL RHINOPLASTY

WILLIAM R. LOMAX, M.D.*

KENNETH A. BROWN, M.D.**

The nose is a rather prominent and visible anatomic structure; deformities of the nose cannot be hidden by clothing, makeup or hair styling. This makes rhinoplasty the most challenging of all facial surgical procedures. The goal of rhinoplasty is to obtain a pleasing, natural, functioning esthetic facial unit that does not have an obvious "nose job" look.

Good surgical results are based on a thorough knowledge of anatomy, good surgical technique and adequate exposure. In this regard, rhinoplasty is no different from any other surgical procedure, and in many respects, the need for exposure is greater, as it is more difficult to hide one's errors in judgment and choice of surgical maneuvers. The less than "perfect nose" that we all have experienced is frequently secondary to inadequate intraoperative diagnoses because of an ability to "actually see" the anatomic structures and dynamics involved.

Although I have been performing rhinoplasty surgery for 20 years and feel relatively well versed in the anatomy, dynamics and technique of rhinoplasty, I not infrequently encounter a nasal tip deformity that I have difficulty correcting. Even with the nasal tip cartilage delivery technique, I still feel frustrated in my ability to properly evaluate the deformity interoperatively and to correct the deformity to my satisfaction. The external rhinoplasty approach has alleviated many of my frustrations relative to nasal tip surgery.

External rhinoplasty is not a new procedure, but has only recently begun to gain popularity in this country. It is not an operation in and of itself, but is a method of gaining better surgical exposure whereby a dorsal nasal skin flap is elevated (Figures 1 and 2). Through this approach the nose is reshaped using conventional rhinoplasty techniques.

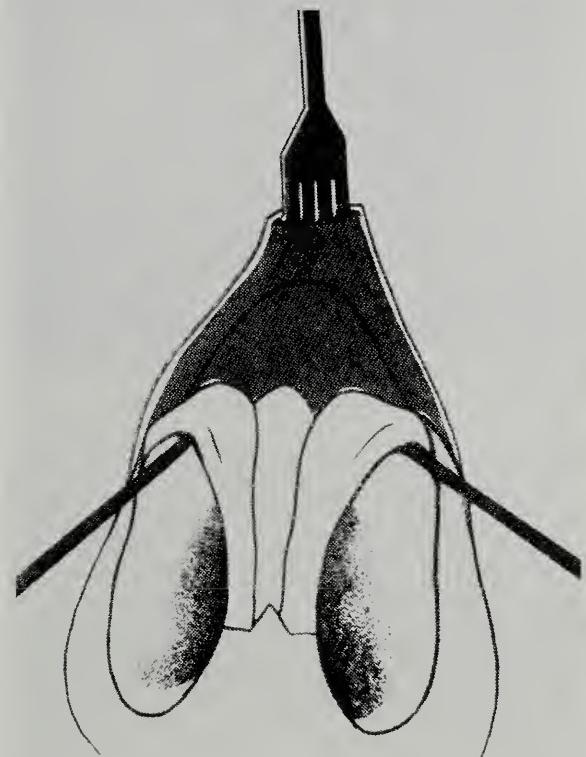


FIGURE 1. Inverted V Incision and Dorsal Nasal Skin Flap.

The dorsal nasal skin flap is made by utilizing an inverted "V" incision in the mid-columnella connected to bilateral marginal incisions that are used in a delivery technique (Figure 1). The flap must be handled carefully and the underlying cartilages must not be damaged during flap elevation. Once the dorsal nasal flap has been elevated, the anatomy of the nose becomes obvious, especially that of the nasal tip with its complicated and intricate relationships and dynamics. This is a great advantage in resident teaching and self-instruction. Hemostasis can be obtained by exact cautery of a bleeding point, thereby further improving visualization. With wide direct exposure, trimming, suturing, repositioning and placement of struts and/or onlay grafts can be

* 208 E. 2nd St., North, Summerville, S. C. 29483.

** 1804 Lenora Dr., Beaufort, S. C. 29935.



FIGURE 2. Direct Exposure Using Dorsal Nasal Skin Flap.

done with great accuracy. Upon completion of the operation, the dorsal nasal flap is returned to its anatomic position and the incisions are closed. My initial hesitancy in utilizing this "open approach" was the noticeable scar across the columella; however, with careful approximation and meticulous suturing of both skin and subcutaneous tissue, this concern of an unsightly, obvious scar has not materialized (Figure 3).

Indications for the open approach are many and varied, but usually relate to better exposure in complicated, deformed nasal tips, revision rhinoplasty, placement of grafts, severely scoliotic noses and nasal septums, and in resident teaching. It is also indicated in excision of nasal tumors, repair of nasal septal perforations, and trans-nasal sphenoidotomy.

There are no specific contra-indications to an open procedure other than the patient's refusal to accept a scar across the columella. A relative contra-indication is the ability to achieve the same results through the closed standard rhinoplasty approach.

Complications of open rhinoplasty usually involve post-operative swelling and tender-



FIGURE 3. One Year Post-op; Minimally Detectable Columella Scar Following External Rhinoplasty.

ness, particularly in the area of the columella. This is a minor complaint and usually resolves within two weeks. The open procedure does require more surgical time due to the length of the incision, need for careful dissection and the need for meticulous suturing.

Although the open rhinoplasty approach does not guarantee a successful result, it does facilitate the understanding and proper intraoperative diagnoses, along with allowing the surgeon to correct the deformity under direct vision. This in combination with the proper execution of a surgical plan will frequently lead to a better surgical result. □

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ADJUNCTIVE PROCEDURES IN SURGERY OF THE AGING FACE

PAUL T. DAVIS, M.D.*

CALHOUN D. CUNNINGHAM, M.D.**

Rhytidectomy (face lift) and blepharoplasty (eye lift) are the basic procedures in rejuvenation of the aging face. Adjunctive procedures, forehead lift, lipo-suction, chin augmentation, cheek augmentation, chemical peel, collagen injection, hair transplantation and permanent eyeliner are commonly done simultaneously or as separate procedures to improve or enhance the rejuvenation of the aging face.

Almost all surgery for rejuvenation of the aging face is done in an ambulatory or office surgical facility which decreases cost and makes it available to more people. Many celebrities have been very open about having facial plastic surgery which has resulted in increased acceptance by the population. Improvements in technology, a better understanding of facial anatomy, facial dynamics and improved and new surgical procedures have improved results and decreased complications.

During the past two decades, society has placed a greater emphasis on diet, fitness and youth. There is an increased emphasis on quality of life. The population is getting older, remaining healthier and is more concerned with staying in the mainstream of society. The above have resulted in an increased demand for and acceptance of facial plastic surgery. Facial Plastic and Reconstructive Surgery is a sub-specialty of Otolaryngology-Head & Neck Surgery. Surgery for rejuvenation of the aging face comprises a major portion of the practice of many Otolaryngology-Head & Neck Surgeons.

FOREHEAD LIFT

The forehead or coronal lift (Fig. 1) is usually done by making an incision in the scalp posterior to the hair line from temple to temple. The forehead is elevated in the sub-galeal plane down to the superior orbital rim. The procerus

and corrugator muscles are sometimes removed, partially or completely, to lessen the glabella frown lines. The frontalis muscle may be divided to minimize forehead wrinkling. The forehead flap is pulled superiorly and posteriorly to correct eyebrow ptosis, improve lateral orbital wrinkling and decrease forehead lines. The forehead lift is often done in conjunction with a face lift procedure. The forehead lift done in the traditional method raises the hair line which is acceptable in most patients. Modifications include a hair line or mid-forehead incision to avoid the superior and posterior hair line displacement. When the hair line incision is employed, it is beveled so that hair grows through the resultant scar, placing the scar within the hair line. The procedure is done under local anesthesia and complications which include numbness and thinning of the hair are infrequent and usually resolve with time.

LIPO-SUCTION

Lipo-suction is the removal of fat using a blunt tipped cannula attached to a suction machine (Fig. 2). The cannula is pushed through the fat, breaking up fatty lobules which are removed through an aperture on the side of the cannula behind the tip. The blunt tip pushes large vessels and nerves aside allowing safer, more controlled removal of fat than the traditional open surgical dissection. Fat may be removed from the submental, cervical, neck, jowl, and nasolabial areas as indicated with the lipo-suction technique.

Lipo-suction is often done in conjunction with a rhytidectomy. The aperture of the suction cannula is convenient to remove the fat from the *Superficial Muscular Aperneurotic System* beneath the flaps raised during face lift surgery. The subsequent clean fascial system can be plicated or excised to tighten the facial muscular system, resulting in a longer-lasting face lift with fewer complications than using

* 506 East Cheves St., Suite 101, Florence, S. C. 29501.

** 915 Medical Circle, Myrtle Beach, S. C. 29577.



FIGURE 1: Female with brow ptosis and forehead wrinkling corrected with a coronal lift in conjunction with a face lift. (Left: Pre-op; Right: Post-op, one year.)

skin excision alone for obtaining the lift as was done in the past. Facial lipo-suction may be performed under local anesthesia, and the minimal bruising and swelling allows the patients to resume their normal activities in a few days.

CHEMICAL PEEL AND DERMABRASION

Chemical Peel (Fig. 3) and dermabrasion (Fig. 4) remove the epidermal and a portion of the dermal layers of the skin. The depth of both can be controlled. Dermabrasion is controlled mechanically, and the depth of the chemical peel is controlled by the nature of the chemical used and by the concentration of the chemical. Most cosmetic surgeons use chemical peeling for rejuvenation of the aging face or for wrinkling, and reserve dermabrasion for scarring. The chemical peel may be done either with trichloroacetic acid or a phenol mixture known as Baker's formula. The trichloroacetic acid peel is more superficial and is used for light or superficial wrinkling. The outcome is not as

lasting and is less dramatic than that produced with the phenol peel. With either type peel a burn is created by the chemical. This results in erythema and peeling, as in a sunburn, with a low strength trichloroacetic acid peel. The deeper phenol peel produces a second degree burn, resulting in crusting which lasts for up to ten days. During the crusting phase, as new epithelium forms, the skin is erythematous for about six weeks, but this can be concealed with makeup. After the erythema subsides, hypopigmentation sometimes develops, depending on the depth of the peel. Chemical peeling is frequently done before, after, or in conjunction with facial rejuvenation surgery.

CHIN AUGMENTATION

Chin augmentation (Fig. 5) is the procedure used to correct a weak chin or micrognathia and is accomplished under local anesthesia through an intra-oral or submental incision. Usually an alloplastic material is implanted over the anterior mandible under the chin which results in more projection of the chin.



FIGURE 2: Patient with excess submento-cervical fat treated with suction assisted lipectomy and chin augmentation. (Left: Pre-op; Right: Post-op.)



FIGURE 3: Female with excess facial skin and deep wrinkling treated with face lift followed by phenol chemical peel. (Left: Pre-op; Right: Post-op.)



FIGURE 4: Female with acne scarring treated with dermabrasion. (Left: Pre-op; Right: Post-op.)

This is sometimes accomplished by an osteotomy of the inferior-anterior portion of the mandible. The procedure can be done alone but often it is done in conjunction with a rhytidectomy, lipo-suction or rhinoplasty. Complications are minimal but include infection and asymmetry. Bruising is minimal and the patients can usually continue their daily activities after a few days.

CHEEK AUGMENTATION

High cheek bones have been popularized by Sophia Loren and other celebrities, and cheek augmentation surgery has developed over the past two decades. Under local anesthesia using an intra-oral or blepharoplasty incision, an alloplastic material is placed over the malar prominences increasing the projection of the cheeks. Bruising and swelling are usually minimal and resolve in a few days. Complications are rare and include infection and asymmetry. The patient can resume his or her normal daily activities in a few days. The operation is done alone or in conjunction with a rhytidectomy, lipo-suction, rhinoplasty or blepharoplasty.

COLLAGEN

Wrinkles, scars and other depressions in the skin may be improved or corrected by the injection of collagen into the defect. The collagen is gradually absorbed but persists for six to 18 months. The results are longer-lasting in less mobile areas such as forehead wrinkling and disappears more quickly in more mobile areas such as perioral wrinkling. The patient must be tested for sensitivity since about five percent of the population is allergic to the product. If no sensitivity is evident after one month, the collagen is injected into the depressed areas with a fine needle. The patient usually can return to normal activities even though some ecchymosis occurs in a few patients. Often, several injections are required to obtain maximal improvement and they are done two to four weeks apart.

SUMMARY

Acceptance of surgical treatment for rejuvenation of the aging face has increased over the past two decades. Face lift (or rhytidec-



FIGURE 5: Female with facial wrinkling, microganthia, and brow ptosis treated with face lift, chin augmentation, and coronal lift. (Left: Pre-op; Right: Post-op.)

tomy) and blepharoplasty remain the basic procedures used in this surgery. Adjunctive procedures such as forehead lift, lipo-suction, chemical peel, chin augmentation, cheek augmentation, collagen injections, hair transplant and permanent eyeliner have been developed to enhance the results of surgery for rejuvenation of the aging face. All of this surgery can be, and usually is, accomplished using local anesthesia with intravenous sedation in an ambulatory surgical facility. □

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From Route 16...



CODEINE
COMBINATION

DIZZINESS: CURRENT EVALUATION

WARREN Y. ADKINS, M.D.*

WILLIAM J. FRAVEL, M.D.**

Evaluation of the dizzy patient is frequently a difficult diagnostic problem. A systematic approach is necessary to establish a definitive diagnosis, when possible, and to rule out dangerous disease processes when one is not made.^{1, 2} All patients with significant dizziness need a careful history and physical examination. The examination entails a neurological evaluation and appraisal for spontaneous, gaze and positional nystagmus and fistula testing, i.e., strong positive and negative pressure to the external auditory canal with a pneumatotomoscope to see if dizziness and/or nystagmus is elicited. Ophthalmologic and/or psychiatric evaluation may be indicated. The screening chemistries commonly include thyroid, serology for syphilis, determination of cholesterol, triglycerides and blood sugar levels. An audiometric survey for speech discrimination and retrocochlear abnormalities is indicated. Any significant abnormalities discovered by the above are addressed, and specific and/or supportive therapy instituted.

In developing a scheme for further assessment, the patients are separated into those with nonspecific dizziness and those with vertigo. The two groups are further divided into those with normal and abnormal audiometric findings. A flow diagram can then be worked out with a number of common paths between groups (Table 1).

Patients with nonspecific dizziness and a normal audiometric outcome are given a trial with supportive therapy. If they remain symptomatic, an Electronystagmographic evaluation (ENG) is performed and the sinusoidal harmonic acceleration test (SHAT) considered. When normal, posturography testing (movement coordination and sensory organization) may be indicated, and if it is abnormal, further

neurological evaluation and a Magnetic Resonance Imaging (MRI) should be considered. With no other new findings, symptomatic treatment is followed. In selected cases, physical therapy may be beneficial.

If the ENG and/or SHAT findings are abnormal indicating a peripheral problem, specific or symptomatic therapy and follow-up are pursued. If there is no improvement, posturography is considered. If the ENG deviations are nonspecific or point to a central nervous system defect, an MRI is indicated and when abnormal, otoneurologic, neurologic or neurological intervention is indicated.

An abnormal audiometric result requires brain stem response audiometry, and when normal, and the patient continues to be symptomatic, an ENG and SHAT are completed. In the event the brain stem response is abnormal, an MRI is implemented with further consideration pending the results.

In patients with vertigo and normal audiogram, and ENG plus/minus a SHAT is carried out with further evaluation pending the results. If the audiogram is abnormal, brain stem response is added with further solution pending the outcome.

These outlined systematic preparations will usually lead to a specific diagnosis and treatment, and avoid overlooking a significant disease process.

Within the last few years, SHAT testing and posturography have moved from the research laboratory to clinical applications. Confirmation of their use and cost effectiveness is being studied. SHAT is adjunctive and does not replace conventional ENG examination entailing neck torsion, spontaneous, gaze and positional nystagmus (Hallpike and non-Hallpike). In addition, bithermal caloric and fixation suppression tests are incorporated. SHAT has a greater degree of reproducibility than the bithermal caloric tests, can be applied to patients with external canal atresia or stenosis

* Department of Otolaryngology and Communicative Sciences, Medical University of South Carolina, 171 Ashley Avenue, Charleston, S. C. 29425-2242.

** 1639 Brabham Avenue, Columbia, S. C. 29204.

DIZZINESS

DIZZINESS

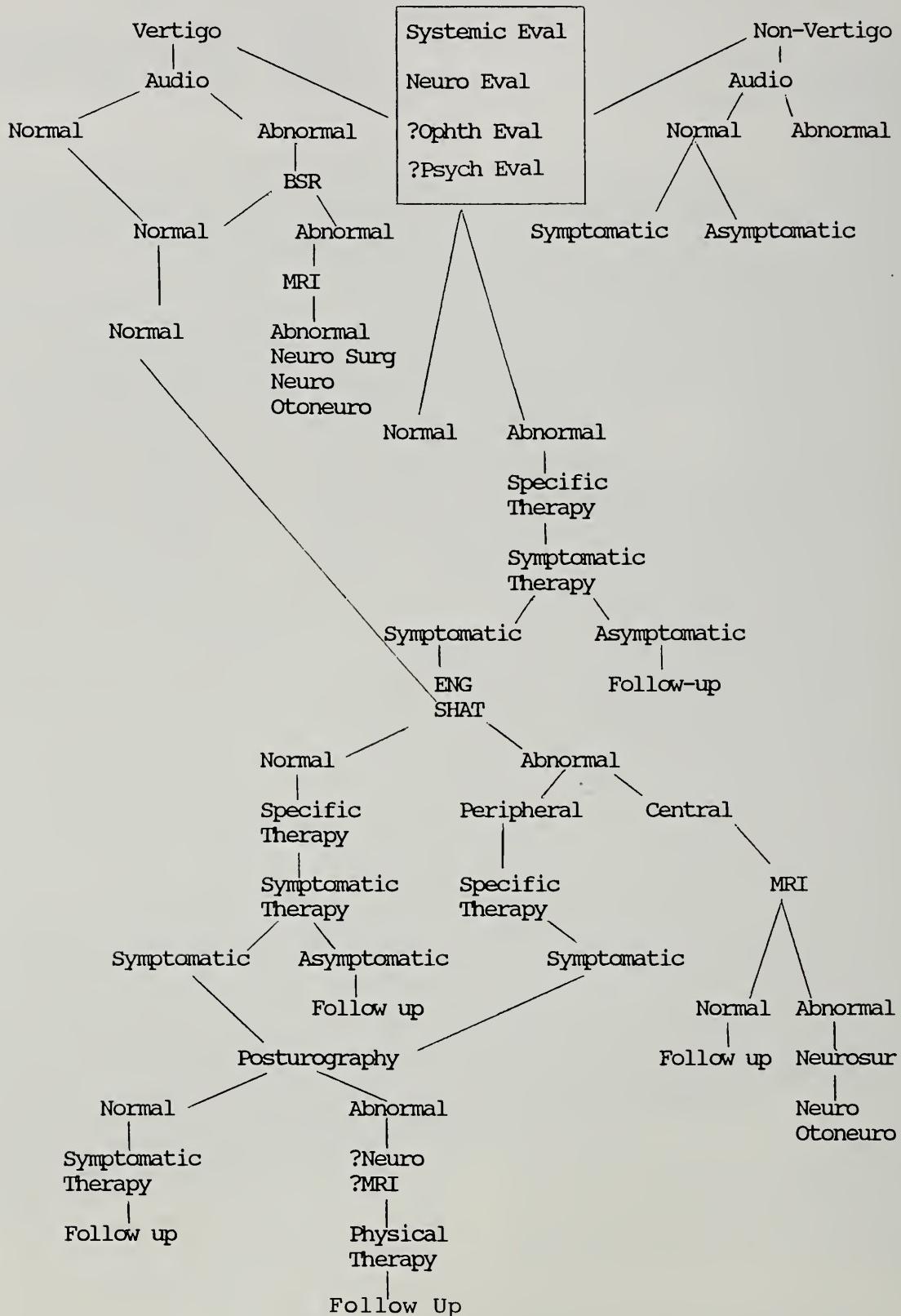


TABLE 1

DIZZINESS

and with more reliability in patients with previous open mastoid surgery. It may also be used to ascertain vestibular function in children and the degree of residual function when the patient has severe hypoactivity to caloric irrigations.^{3, 4}

A commercial posturography test unit (EquiTest) which evaluates sensory organization and movement coordination is marketed by Neurocom International, Incorporated, and is based on the principle that proprioception, visual input and vestibular function are integral to maintaining a sense of security relative to the environment. The patient stands with each foot on a special sensory platform which can tilt and move backward and forward. A 180 degree visual screen in front of the subject can tilt with, or independently of, the sensory support. In the sensory organization portion of the test the subject is monitored with the (1) platform stable, visual field stable and eyes open, (2) platform stable and eyes shut, (3) platform stable and visual field swayed, eyes open, (4) platform swayed, visual fields stable, eyes open, (5) platform swayed with eyes shut and (6) platform and visual fields swayed and eyes open. These conditions place the stress on different components of the balance mechanism. For each test condition, equilibrium and strategy are calculated.

In the movement coordination portion of the test, the platforms move forward and backward in small and large perturbations, as well as with toes up and toes down. For each condition, static and dynamic symmetry, latency, aptitude, adaptation (with repeat test) and strategy in regaining a stable posture are recorded. In selected cases, improved scores with repeat testing may signify benefits from physical therapy.^{5, 6}

The tests outlined advance the evaluation of the patient with dizziness and vertigo. □

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PHYSICIAN RECOGNITION AWARDS

The following SCMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned.

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HEARING CONSERVATION AND NEW TECHNIQUES IN REHABILITATION*

R. STEWART BAUKNIGHT, M.D.
ROBERT C. WATERS, M.D.
ROBERT M. POLAND, M.A.

Twenty-eight million Americans suffer psychologically and functionally from sensorineural hearing loss. The number will increase as the population ages, and primary physicians can expect additional inquiries regarding hearing problems, the approach to which follows two avenues. One is the prevention of deafness, and the other is the treatment of the impairment. All persons with a hearing loss can be helped through rehabilitative methods including the exciting new technology in amplification.

PREVENTION OF HEARING LOSS

Most cases of sensorineuronal hearing loss are the result of the aging process and of noise trauma. A small percentage is familial or other disease related. Aging of the inner ear cannot be prevented, but harmful environmental effects on the ear can be minimized. Of the known detrimental entities, noise trauma is the most prevalent.

It is estimated that 35 million Americans may be exposed to potentially damaging noise in the workplace, and this links workplace noise to 27 percent of probable occupational disease.¹ South Carolina has prominent noise-generating industries such as textile, tool and wood product manufacturing.

Noise may produce a permanent hearing loss due to destruction of inner ear structures. This destruction is related to several factors. These are the overall noise level, the frequencies involved, the duration of exposure during a day, the cumulative exposure in days or years and the individual susceptibility to noise trauma. The early stages of noise-induced hearing loss may go unnoticed unless found by hearing tests.

Occupationally induced health problems prompted Congress in 1970 to pass the Occupational Safety and Health Act (OSHA) which established standards for occupational noise exposure. In 1972, an action level of 85 dB was established for all Hearing Conservation Programs (HCPs). South Carolina was the first state to enforce this OSHA amendment.

In 1983 OSHA published the Hearing Conservation Amendment (HCA-83) which set detailed rules for all industries in which workers are unavoidably exposed to potentially hazardous noise levels. The HCA-83 amendment is the current standard.

The table below summarizes the criteria for the establishment of a Hearing Conservation Program and presents the permissible limits of continuous noise exposure mandated in HCA-83.

EQUAL-RISK NOISE EXPOSURES
CALCULATED ACCORDING TO THE 5-dB
RULE FOR STEADY-STATE NOISE.²

HCP needed*	Sound Levels (dBA)	Duration of Exposure (hours per day)
80	85	16
85	90	8
88	93	6
90	95	4
93	98	3
95	100	2
98	103	1.5
100	105	1
105	110	0.5
110	115	0.25

* criterion level for which a hearing conservation (HCP) is required by HCA-83.

** Permissible Exposure Level. Criterion level for which an 8-hour day is permissible.

* From Easley Head and Neck Surgery, P.A., 109 Fleetwood Drive, Easley, S. C. 29640.

HCA-83 states that any impulse or impact noise in the workplace shall not exceed 104dB.

Effective Hearing Conservation Programs include provisions for noise analysis, noise control, noise protection (ear plugs, muffs), periodic hearing measurements, action when hearing changes, and personnel notification and education. As physicians, we should be the educators and leaders in this important aspect of preventive medicine.

REHABILITATION AND AMPLIFICATION

Of the estimated 28 million Americans that have significant hearing loss, only 15 percent become hearing aid users.^{3, 4} And yet, amplification remains the single best approach dealing with the communicative and social handicaps associated with deafness. Why do so few obtain help? The primary reasons are that many think they do not need amplification, and that aids are too expensive and are unattractive. Many believe or are told by a physician that a hearing aid cannot help.

Rehabilitative techniques such as lip reading, preferential seating, optimal positioning, sign language and family education and counseling by trained and interested professionals are beneficial to all. The communicative skills of many neglected persons, old and young, can be further enhanced using these techniques plus amplification.

Conventional hearing aids have undergone improvements to make them more acceptable and useful. Miniaturization has made the in-the-ear hearing aid the most popular aid today. Additionally, automatic signal processing in these small aids lessens loud sounds and amplifies soft sounds while keeping the overall output at an acceptable comfort level for the user. Expense is being controlled through the use of modular preassembled circuits which can be mass produced and fitted into the aid by the dispenser. This feature allows immediate delivery and on site repair and modification of the aid by the dispenser.³

Digital hearing aid technology is foremost in the improvements of hearing aids.⁵ This new technology converts the analog sound wave signal into a digitized binary form. This in turn greatly expands the possibilities of signal modification to enhance, diminish, eliminate or

add to the signal. The new digitized signal is reconverted into sound and presented to the user. Digital technology also allows programming of a single device to have different responses to a given signal. A better match between symptom and treatment is thus possible. The digital aid now obtainable has three programs which can be chosen by the user to best match different listening conditions or fluctuations in the user's hearing.⁵ The current disadvantages of the digital aid are size (not yet miniaturized) and cost. The future should bring improvements that revolutionize the hearing aid industry.

The implantable hearing aid is another promising new progression in hearing amplification.⁴ The device consists of a surgically implanted electromagnet attached to the skull or to a middle ear ossicle. Vibration is induced in the implanted magnet by an externally worn induction coil connected to a receiver. The currently approved implantable aid is inserted into the skull behind or above the ear through an outpatient operation under local or general anesthesia. This device is practical and available for those persons who are unable to wear a conventional hearing aid because of a congenital deformity, canal stenosis, chronic otitis or a previous mastoidectomy. Other devices are under investigation.⁴

The cochlear implant is another significant step in the understanding and treatment of sensorineural hearing loss. This device has had much attention in the lay press. The cochlear implant consists of an electrode surgically placed inside the cochlea. The electrode is connected to an induction coil implanted beneath the skin above and behind the ear. An external induction coil connected to a body worn processor is worn at the implant site. A sound signal is converted into an electrical signal which directly stimulates inner ear structures. Several devices are available or are under investigation.⁶

Cochlear implants are indicated only for the profoundly deaf who obtain no benefit from conventional amplification. Ideally, a candidate for a cochlear implant is a profoundly deaf adult of recent onset, who has previously developed speech, has no infectious ear disease, is highly motivated and has at least average intelligence.⁷ Indications for children are more

HEARING CONSERVATION

stringent. The cochlear implant does not restore normal hearing. Generally, users can detect sounds at normal levels, are able to discriminate between some sounds, recognize a few words in context and monitor the level of their own voice. The most consistent results are that users develop better lip reading ability and are more aware of their surroundings. Cochlear implantation is more than surgery. The process includes preoperative and postoperative training by a qualified team, which consists of audiologists, speech pathologists, physicians, psychologists and the patient's family.⁸

In addition to hearing aids, there exists a large category of devices designed to help improve communication and awareness in the hard of hearing. These consist of alerting and signaling devices such as buzzers, flashing lights or vibrators. They are used to aid detection of smoke alarms, alarm clocks, turn signals and others. Personal listening devices and amplifiers are available for the radio, telephone, lecture halls and for other personal needs.

Hearing loss in many patients can be prevented, and all can be helped. The primary physician can be aware of the prevalence of the problem and detect cases by history and screening tests in the office. When appropriate, referral can be made to qualified health care providers. □

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MANAGEMENT OF POST-INTUBATION AND POST-TRAUMATIC AIRWAY STENOSIS

LUCINDA A. HALSTEAD, M.D.*

JAMES T. BOWLES, M.D.**

Stenoses of the larynx and trachea from trauma or intubation are seen regularly by the otolaryngologist-head & neck surgeon. Prolonged endotracheal intubation in adults results in pressure injuries in the posterior glottis and the trachea. While high volume, low pressure cuffs have substantially reduced the tracheal incidence, glottic stenosis remains unchanged.¹ A prospective study of 200 patients revealed 14% of patients intubated more than 10 days had severe laryngeal strictures.² Long term intubation used in the management of neonates since 1965 is now the most common source of subglottic stenosis in infants and children.³ While existences as high as 20% were documented in the 1970s, current reports place acquired subglottic stenosis in neonates between 4-8.5%.³ Trauma to the larynx and trachea has supplanted infection as the next major cause of airway constriction.⁴ Traumatic stenoses can occur at any level (supraglottic, glottic, subglottic or tracheal) depending upon the site of injury (hyoid, thyroid cartilage, cricoid or trachea).

Airway stenoses emanate from the loss of cartilage and soft tissue or from the proliferation of dense granulation tissue followed by scar formation. The type of repair depends on the nature of the stenosis. Until the mid-1970s, treatment consisted largely of bypassing the pertinent segment with a tracheotomy and treating the stenosis by dilatation, stenting, tracheal grafts, or tracheal resection. Advances in carbon dioxide (CO₂) laser microlaryngoscopy and bronchoscopy since the 1970s have made endoscopic treatment of many airway stenoses possible and often avoids tracheotomy.

The management of laryngeal and tracheal

stenoses requires careful appraisal of laryngeal function and the involved site. Fiberoptic laryngoscopy allows an undistorted, unhurried evaluation of laryngeal function. Bilateral vocal cord paralysis and severe glottic incompetence with aspiration limits therapeutic options. Radiographic determination of the length and diameter of the stenotic area is important. Computed tomography (CT) and magnetic resonance imaging (MRI) have replaced tomography as imaging modalities of choice. Both give excellent assessment of soft tissue and cartilage and are equally effective (Figure 1).⁵ In certain instances the sagittal imaging capability of MRI is helpful. CT and MRI are avoided in infants and children since the sedation required to reduce motion artifact makes the risk of airway obstruction in the scanner unacceptably high. Magnification airway radiography excellently delineates the airway in infants and children without sedation (Figure 2).⁶

Until the early 1970s, subglottic stenosis was managed primarily by tracheotomy and dilatation. A report by Fearon and Cotton in 1974 of a 24% mortality among infants and children managed in this manner has stimulated a more aggressive approach among otolaryngologists-head and neck surgeons.⁷ Suspension microlaryngoscopy with CO₂ laser excision of subglottic scar tissue is the preferred method of treatment in adults and infants at the Medical University of South Carolina (Figure 3). The CO₂ laser vaporizes scar tissue with micrometer precision with minimal surrounding thermal damage, unlike cautery or cryosurgery, and has been successful in both adults and children.⁸⁻¹⁰ Over the past 16 months, tracheotomy has been avoided in nine of 10 infants with severe subglottic stenosis utilizing this technique. When laser is unsuccessful in infants, an anterior cricoid split allows the subglottic area to be enlarged. Open techniques

* Department of Otolaryngology and Communicative Sciences, 171 Ashley Avenue, Charleston, S. C. 29425-2242.

** 110 East Medical Lane, West Columbia, S. C. 29169.



FIGURE 1. A. & B. Axial CT scan cartilaginous tracheal stenosis (small arrows). C. Sagittal MRI of tracheal stenosis secondary to granulation tissue and scar (small arrows).



FIGURE 2. Magnification airway radiograph of subglottic stenosis (arrows).

with cartilage grafting are practiced in infants when the above techniques fail as well as in adults with cartilage loss.^{3, 11}

Tracheal stenoses may also result from cartilage loss or scar proliferation. Bronchoscopic CO₂ laser has been highly effective in excising tracheal cicatricial tissue. The CO₂ wavelength is preferred over the Nd-YAG and KTP wavelengths since it volatilizes tissue with minimal

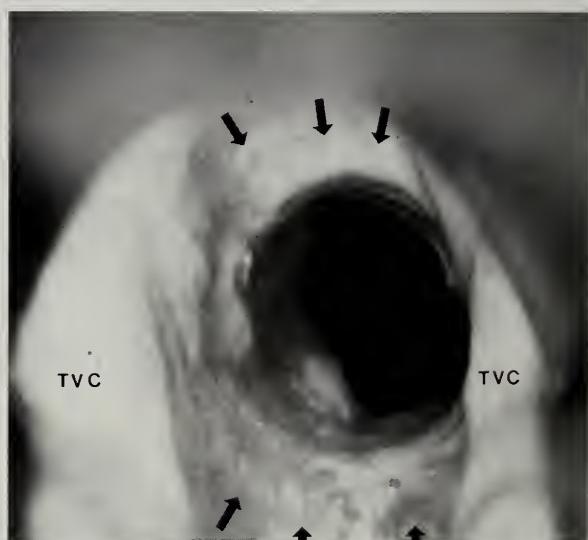


FIGURE 3. Subglottic stenosis as seen during suspension microlaryngoscopy with CO₂ laser excision. TVC—true vocal cords, arrows—stenosis.

surrounding thermal harm.¹² In cartilage injury, tracheal resection with reanastomosis provides excellent results.¹³

Supraglottic and posterior glottic stenoses continue to be difficult management problems with either laser or open techniques. Laser treatment has prevailed on well delineated interarytenoid fibrous bands and supraglottic stenoses.⁹

In summary, the surgical management of post-traumatic and post-intubation airway stenoses has dramatically expanded since the mid-1970s. The CO₂ laser has made the most impact on the management of airway stenoses by well founded endoscopic surgery and avoiding tracheotomy in many cases. □

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On the Cover:

The cover illustration is from a hand-colored lithograph by Dr. J. M. Bougery published in Paris in 1832 ("Traité Complet de L'Anatomie de L'Homme"). Lithography, "to draw on stone," was introduced by Sennefelder in Germany in 1796 as a less costly alternative to the copper plate engraving. The image was drawn on finely polished limestone with a greasy ink and then a thin layer of water was poured onto the tablet. Paper was then pressed against the stone, and the elevated ink image was transferred and the non-image area was wetted with water. When the paper dried, the lithograph could be colored by hand. The image of this lithograph was probably inked on zinc, which was an improvement from the fragile limestone. Mechanization of lithograph coloring was introduced in the 1930s, and utilized successive pressings with separate plates for each color. The original Currier and Ives pastoral scenes were printed with such a process.

The early anatomists and surgeons were one

and the same. As structural and functional relationships were defined, surgical techniques were created or altered accordingly. The first oncologically-sound operation for cervical metastases, the en bloc radical neck dissection promulgated by Hayes Martin in the 1940s, was based on careful study of the cervical lymphatics. As revealed by the cover lithograph, these lymphatics were well not delineated in the mid-19th century. The newer "conservative" neck dissections which remove specific cervical lymphatics while preserving the internal jugular vein, spinal accessory nerve and/or sternocleidomastoid muscle were also developed in the anatomy and autopsy laboratories prior to use on cancer patients. Future developments in surgery will continue to depend on cooperation between the anatomist, pathologist, physiologist and surgeon.

—J. DAVID OSGUTHORPE, M.D.
Guest Editor

Editorial

OTOLARYNGOLOGY-HEAD AND NECK SURGERY

Prior to 1892, there were 11 states represented in the American Laryngological Association (1878), and in that year Dr. W. Peyre Porcher of Charleston was elected as the first Fellow from the south. Later he became President of the S. C. Medical Association and implemented the republication of a state medical journal which had been suspended since 1877 because of the slow post-War Between the States recovery. By 1893, Otolaryngology was being presented in all of the post graduate U. S. medical colleges.

Of significance in the development of the specialty was the establishment of a school of Otolaryngology after World War I at a Camp Greenleaf, Chickamagua Park, Georgia, which was the forerunner of the American Board of Otolaryngology (predated only by Ophthalmology). Recognizing a lack of knowledge of the fundamentals of the field as well as allied sciences, perceptive leaders concluded that standardization entailing a satisfactory examination for certification was needed to sort out the untrained, self-styled specialist.

The advent of antibiotics in the 40s, the maturing of anesthesia and the experience gained during World War II pertaining to fluid and blood replacement, shock and trauma influenced a dramatic shift from control of infection and its complications to other dimensions. During this period, many eminent practitioners predicted dissolution of the Otolaryngology specialty. Far from limiting its sphere, radical procedures for head and neck neoplastic diseases opened up. Since control of the air and food passageways via the laryngo-pharyngeal complex to insure adequate respiration and prevent aspiration is vital to major head and neck surgery, it was natural that the evolution come through Otolaryngology with its particular proficiency in these specific needs. To remain in the mainstream and with the guidance of the Board of Regents of the Ameri-

can College of Surgeons, training in underlying general surgical principles became a prerequisite in residency programs (currently at least one year of general surgery in the five year minimum of postgraduate training), which accelerated expansion into a regional specialty which includes facial plastic and reconstructive, orbital, neurotologic and skull base procedures. Technologic refinements in lasers, endoscopic telescopes and surgical microscopes have been appropriated into sinus, otologic and laryngeal disorders.

The trend towards effective chemotherapy and irradiation in combined therapy for advanced head and neck cancer, along with technical advances in skull base (intracranial-extracranial) ablation operations and reconstruction with regional myocutaneous or microvascular flaps are expected to intensify in the coming decade. Progress in glossomanidibular restoration with osseous components and a functional transplanted or artificial larynx, unsuccessful in the past, may be revived in the future.

The recent formation of the National Institute of Deafness and Other Communication Disorders should promote further investigations into the regeneration of the hair cells of the human inner ear (as discovered in certain fish), digital hearing aids, and cochlear and internal auditory implants, especially in profoundly deaf infants and children.

Taking into account the present and anticipated directions, subspecialization within Otolaryngology/Head and Neck Surgery in the tertiary care and university centers seems likely to continue.

F. JOHNSON PUTNEY, M.D.
Professor Emeritus
Dept. of Otolaryngology
MUSC, 171 Ashley Ave.
Charleston, S. C. 29425



Auxiliary Page

SCMA HEALTH PROJECTS: 1989-90

The South Carolina Medical Association Auxiliary Health Projects Committee is enthusiastically committed to its ongoing goals and ideals. For the year 1989-90, we hope to promote health care in our 27 organized counties by combining their efforts to promote health education and total well-being of all South Carolinians. In addition, we would hope that such efforts will serve to inform the public of the many services and deeds quietly volunteered by those of the medical profession, thereby re-emphasizing the positive role of the medical community.

In keeping with the goals of the Comprehensive Health Education Act, the AMA and SCMA auxiliaries continue to work on the early childhood and adolescent health initiatives to insure the healthy development of all. These goals will vary from one county to the next; however, each program will meet definite immediate needs and contribute to a healthy community. Examples of programs begun in response to the AMA initiative are those which deal with substance abuse, sexuality and pregnancy, victimization, psychological disorders and suicides, trauma and violence, and more recently, HIV education.

Our more recent accomplishment, of which we are quite proud, is the Health Education Van. Through the combined efforts of our county auxiliaries, medical societies, and other dedicated individuals, we achieved our dream of a mobile classroom which would travel to schools within our state, promoting health and education to our students. This is a hands-on experience guided by totally committed and enthusiastic health educators. Additionally, South Carolina is the first state to conceive such an idea, and through 100% participation in less than 15 months, have it become a reality.

Along with the Health Education Van, we continue to endorse the Physicians' Family Support Committee; a fall and winter board (each board meeting focuses on health issues and also utilizes exhibitors from area health organizations such as the American Cancer Society, the American Red Cross, the Council on Drug and Alcohol Abuse, etc., who are on hand to share educational materials, ideas and resources with our members); annual school nurses' workshops (in conjunction with the South Carolina Department of Education and the South Carolina Department of Health and Environmental Control); and numerous other community projects.

Also, we also support the smoke-free policy adopted just recently by area hospitals and health facilities in hopes that in the near future we will have a smoke-free society.

To coincide with national "Talk About Prescriptions" Month in October, we hope to sponsor a statewide campaign to encourage older citizens and their physicians to review their medications. In this way, we would hope to achieve our goal of improving physician/patient understanding and communication.

As co-chairmen of the Health Projects Committee, we look forward to working with each auxilian, physician and individual to promote the many issues of health care in each area. We welcome your input and appreciate your support in all areas to assure our state of a successful and productive year.

JOANNE DUNOVANT and
KATHY EVANS, *Co-Chairmen*
SCMAA Health Projects Committee

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HOW GOOD (OR BAD) IS THE PAP SMEAR?

WILLIAM T. CREASMAN, M.D.*

It has been almost a half century since Papanicolaou and Traut published their monograph on what today has become known as the Pap smear. Because of other worldwide activities at that time, its acceptance was postponed and was really not implemented until the 1960's and 70's. Even in the early 1970's it was estimated that only 50% of the adult women had ever had a Pap smear and only 25% on a "regular" basis. Fortunately, at the present time it is estimated that over 90% of the adult women in the United States have had at least one Pap smear and that some 60% have a Pap smear on a regular basis (at least every three years).

The Pap smear was the first, and until recently the only screening technique that has been shown to be effective for cancer anywhere in the body. Interestingly, the efficacy of the Pap smear has never been demonstrated in a prospective randomized study. Because of bioethical considerations that study will never be done. It has, however, been shown to be effective in reducing the incidence and mortality of cervical cancer. Nowhere in the world has the incidence of invasive cancer decreased without an active screening program. A good example of its efficacy is a study from Iceland where, prior to the introduction of screening, the mortality from cervical cancer had been rising. Once screening was established, the annual mortality rates began to decline and now are less than half of the rate that was present in the

late 1960's. This study is especially noteworthy because cancers are reported through a central registry and it is an isolated country and, therefore, mobility of the population is limited. Even the harshest critics of the Pap smear all agree that the indirect evidence is very strong in concluding that the Pap smear has been effective in decreasing the incidence and therefore the mortality of invasive cancer.

It should be remembered that an ideal screening technique is not to identify the lesion once it is present (i.e., invasive cancer), but to identify its precursors (cervical intraepithelial neoplasia—CIN) which are unidentifiable with traditional examination. This benefit is important as these early lesions are easily and effectively treated. This year the American Cancer Society estimates that 12,900 women in the United States will have invasive cervical cancer diagnosed and that 7,000 of these individuals will die from their disease. Yet during the last decade the incidence of invasive cancer has decreased by about 25%. Concomitant with the decrease in the incidence of invasive cancer has been the astronomical rise in the number of patients with CIN identified. It has been estimated that at least 200,000 women (some estimate this figure at one million) in the United States this year will have a diagnosis made of CIN. Essentially all of these patients have been identified because of an abnormality initially noted on the Pap smear.

THE PAP SMEAR CONTROVERSY

Historically in the United States there has been a "yearly" Pap smear which was empirically derived. Over the last several years

* Department of Obstetrics and Gynecology, Medical University of South Carolina, 171 Ashley Avenue, Charleston, S. C. 29425.

there have been questions raised concerning the need of the yearly Pap smear. In 1976, the Walton report from Canada was published and suggested that the Pap smear could be done at a less frequent interval and in general the "every three-year Pap smear" was recommended. They did, however, recognize a group of women who were at increased risk for developing cervical cancer, and these women should be screened annually. In the early 1980's, the American Cancer Society essentially endorsed the Walton report with some modification. After the American Cancer Society's recommendation was published, several other organizations including the American College of Obstetricians and Gynecologists suggested that there was validity in the annual Pap smear at least for a significant number of our population. The "Pap Smear Controversy" erupted. This led to a considerable amount of confusion by both medical personnel and the public. Subsequent data accumulated in British Columbia (which represents probably the best screened population in the world) noted that carcinoma in situ rates for screened females had increased appreciably during the 1970's (two-fold or greater in the 20 to 44-year-old groups and five-fold in the 20 to 24-year-old groups). As a result the Walton Commission, in 1982, rescinded their 1976 recommendations and essentially recommended a yearly Pap smear, particularly for those who were at risk. After considerable discussion among many of the professional groups in the United States, including the American College of Obstetricians and Gynecologists, the American Cancer Society, and the National Cancer Institute, a year ago a new recommendation was endorsed by these bodies which stated: "All women who are or who have been sexually active, or have reached age 18 should have an annual Pap smear and pelvic examination. After a woman has had three or more consecutive satisfactory normal annual examinations, the Pap smear may be performed less frequently at the discretion of her physician." The fellowship of the American College of Obstetricians and Gynecologists have generally interpreted this to be an endorsement of the yearly Pap smear.

FALSE NEGATIVE PAP SMEAR

About the time that the Pap smear contro-

versy was being resolved, a new concern was voiced. How good was the Pap smear? Although this question had been addressed to some degree in the medical literature, it was not until a series of articles appeared in the *Wall Street Journal*, that resulted in the Pulitzer Prize for the author, did this issue become a national concern. The false negative rate with anecdotal examples became front page news. The false negative Pap smear rate was quoted as being between 20 and 40%. That data was based upon studies several decades old, most of which were few in number. Mathematical modeling was then done to predict a suspected false negative rate. These figures may or may not be correct. We really do not know what the false negative rate is for the Pap smear. Recent data would suggest that those figures may be on the low side. Yet even if these percentages are correct, no one denies the benefit of the Pap smear. Two areas have been addressed as to the reasons for this relatively high false negative rate, one being the clinician (inappropriate technique in obtaining the Pap smear) and the other, the cytology laboratory. It has been suggested that each of these two factors are equally at fault, although where that conclusion is derived from is not known.

The Clinician's Responsibility

It is well-recognized that neoplastic lesions of the cervix begin in the so-called transformation zone. This is the area on the cervix that was originally columnar epithelium but during the midadolescent years was transformed by the process of squamous metaplasia into squamous epithelium. As a result, the Pap smear must be taken from this area. The Ayre spatula is commonly used to remove cells from this area. Since disease can extend up the canal, a specimen from this area either with the modified Ayre spatula, os aspirate or saline moistened cotton-tipped applicator has been recommended. More recently, a brush-like apparatus has been developed which does increase the number of cells obtained from the endocervix. The two specimens (exocervix and endocervix) can be placed on a single or separate glass slides and then fixed immediately by whatever technique the cytologist recommends. The vaginal pooled specimen is inappropriate and is not recommended in screening for cervical

neoplasia. Properly obtained Pap smear should decrease the chance of missing abnormal cells if in fact the cervical lesion is present. It should be remembered, however, that if a lesion is seen on the cervix even in the presence of a normal Pap then further evaluation is indicated including a biopsy. It is not unusual to see a gross cervical cancer and yet the patient will have a normal Pap smear. As stated earlier, the Pap smear is not to identify those patients who already have an invasive cancer as our clinical examinations can usually do that very well.

Cytology Laboratory

Much attention has been focused on this area as the reason for the high false negative Pap smear rate. Overworked cytotechnologists reading Pap smears at home on the kitchen sink, and quality control of the laboratory have all received considerable lay press. It is appreciated that "Pap mills" have been in existence in the United States and have become popular because of their low cost (\$2-3) and in many cases a high false negative rate. As a result of some of this recent publicity, Congress has addressed this problem and new Federal regulations have been approved effective 1 January 1989 to govern laboratories including those who do cytology (unfortunately the regulations have not been issued to date). It is recognized that cervical cytology by nature is not 100% accurate and that currently it is an art and not a pure science. There are, however, several guidelines a clinician can use in order to determine the probability that the laboratory is doing a good job.

- (a) Although certification of the laboratory is currently voluntary, the fact that the facility has submitted to this peer review suggests the importance they place on documenting their quality control. The American College of Pathology and the American Society of Cytology, among others, evaluate and certify cytology laboratories. In some states laboratory certification is required.
- (b) There must be good communication between the clinician and the cytology laboratory. It is important for the clinician to be able to discuss the cytology report with the cytologist so that difficult cases

can be resolved. Ideally, the cytology and the pathological material from the patient should be reviewed in the same laboratory.

- (c) The laboratory should be willing to notify the clinician when the cytological smear is unsatisfactory or otherwise uninterpretable.
- (d) The laboratory should be run by a physician-cytologist who is trained in pathology with additional expertise in the interpretation of cytology specimens. All positive or suspicious smears should be reviewed by the cytologists.
- (e) The laboratory should have an adequate number of cytotechnologists for the case load.

WHO SHOULD BE SCREENED?

It is well-recognized that there are several important epidemiological factors which appear to be extremely important in this disease entity. It is appreciated that this is a sexually transmitted disease. The onset of sexual intercourse in the midadolescent years and multiple sexual partners are factors that identify females at risk. It is also recognized that smoking appears to be an independent risk factor for this disease entity. Since the process of active squamous metaplasia is going on during the midadolescent years, it makes sense that the onset of sexual activity during this time frame increases the risk for this disease entity. Multiple sexual partners probably relates to a dose phenomenon more than anything else. The development of CIN can occur within a short time after the onset of sexual activity. In a study from Duke University it was noted that 30% of patients with biopsy proven CIN were 20 years of age or younger at the time of diagnosis and that one-half of these patients had the diagnosis established within five years of the commencement of sexual activity.

For many years the significance of the male factor was not appreciated in this disease process but it is recognized today that there are high risk males. These individuals practice sex with more than one woman and in many cases with prostitutes. Multiple sexual exposures promotes the development and spread of sexually transmitted agents to their partner and certain types of papilloma virus have been

implicated in the genesis of genital squamous carcinoma. Women in monogamous marriages are considered at low risk for cervical cancer; however, we now recognize that many of these women are placed at high risk by their partners. With the present trend toward higher divorce rate, it is likely that even truly low risk women will eventually have multiple sexual partners and move into a higher risk group. It is said that 50% of all married women and 70-80% of all married men have had multiple sex partners. About half of all 16-year-olds have had more than one sex partner. Certainly, the current recommendation of commencement of screening once the individual is sexually active is prudent advice.

Recent data suggest that 25% of all cervical cancer occurs in patients over 65 years of age and that over 40% of all cancer deaths occur in this age group. The prevalence of abnormal Pap smears is high in this age group and the chance of developing an invasive cancer is not necessarily related to prior screening habits in this age group. Therefore, it appears that even though an individual may fall into this age range and has had numerous normal Pap smears, screening should really continue during an individual's lifetime.

RECOMMENDATIONS

The agreed upon previously mentioned Pap smear frequency recommendation appears valid:

"All women who are or who have been sexually active or have reached age 18 should have an annual Pap smear and pelvic examination. After a woman has had three or more consecutive satisfactory normal annual examinations, the Pap test may be performed less frequently at the discretion of her physician."

Although this recommendation can be subject to varied interpretation, an annual Pap smear and exam appears to be prudent. Certainly those individuals at high risk should have an annual Pap smear. Those individuals in the low risk category may very well be placed unknowingly at high risk by their sexual partner even though their activities place them at low risk. It is well appreciated that there are not

many individuals who really satisfy the "three or more consecutive, satisfactory, normal, annual examinations" as the probability for all of those requirements to be satisfied is very low. The experience from British Columbia would suggest that when a woman is asked to return for an annual examination, she does so on the average of every 22 months. A recommendation of longer than one year could result in examinations at less than optimal intervals. Because of the high risk for developing cancer in the older patient, Pap smears should be continued for the life of the individual.

Even with the admitted problems and adverse comments, the Pap smear remains the outstanding example of what screening for a cancer can accomplish. In 1930, more females died from uterine cancer than any other malignancy. During the ensuing years there has been a precipitous drop (70%) in deaths of cervical cancer so that many other cancers account for many more deaths. Although much has been accomplished we cannot become complacent and must continue to recommend to our patients the need for continued screening as suggested above. □

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UTILIZATION OF AMNIOCENTESIS AND CHORIONIC VILLUS SAMPLING BY SOUTH CAROLINA WOMEN 35 YEARS OF AGE AND OLDER*

CAM KNUTSON, M.S.

S. R. YOUNG, Ph.D.

RONALD V. WADE, M.D.

ROBERT G. BEST, Ph.D.**

Although increasing age has been associated with significantly higher risk for chromosome abnormalities in pregnancy, still an estimated 4.4% of all babies in the United States are born to women over the age of 35. Numerous studies of amniocentesis utilization have been undertaken over the past decade in various parts of the United States to determine how prenatal diagnosis usage affects the incidence of Down Syndrome and other genetic abnormalities, and to determine the efficacy of health services provision.²⁻⁵ These studies have found amniocentesis utilization among women 35 years of age and older to range from less than 1% in 1972 to almost 40% in 1981 depending on geographical location. Utilization is lower for black women who live in rural areas.

South Carolina has a population of approximately 3,376,000 with a large percentage living in rural counties. In 1985, 1.8% of South Carolina women had no prenatal care at all which suggests that even routine obstetrical care may be unavailable to some indigent rural patients.⁶ This effect might be even more pronounced with regard to services such as amniocentesis, maternal serum alpha-fetoprotein screening, and newer tests such as DNA linkage and chorionic villus sampling (CVS), a first trimester prenatal diagnostic procedure.

Because the advent of CVS is so recent, utilization studies have not yet been reported for this procedure. South Carolina is unusual in

that it was one of the first in the United States to offer CVS. Because of greater accessibility to the test, women in South Carolina might be expected to use CVS more than women in other southeastern states or rural areas.

To date, there have been few reported studies on prenatal diagnosis in states which have a high percentage of the population living in rural areas. The purpose of this study was to quantify utilization of prenatal diagnostic options among South Carolina women 35 years of age and older during a two year period and to investigate possible correlations between utilization rates and specific demographic variables such as ethnic background, socioeconomic level and geographic location. Utilization rates were investigated for amniocentesis and chorionic villus sampling in South Carolina resident women over the age of 35. This study encompassed the first year in which CVS was offered and the year preceding it, in an attempt to evaluate whether the introduction of CVS as a prenatal diagnostic alternative has had a significant impact on the utilization of amniocentesis.

RESULTS

For the year 1985, 2,578 out of 51,856 (4.9%) total live births in South Carolina were to women 35 and older. Similarly for 1986, there were 2,720 out of 51,726 (5.26%) total live births to older women. The total number of amniocentesis procedures performed increased from 1985 to 1986, however, the percentage of amniocenteses for women 35 years of age and older dropped from 74.8% to 62.5%. Of the 191 total CVS procedures performed in

* From the Department of Obstetrics and Gynecology, University of South Carolina School of Medicine, Columbia, S.C.

** Address correspondence to Dr. Best at Two Medical Park, Suite 301, Columbia, S.C. 29203.

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1986, 158 were for women 35 years of age or older.

There were an estimated 534 pregnancies in both 1985 and 1986 to women over the age of 35 who received their primary prenatal care through South Carolina county health departments. Black patients accounted for 70.6% of the total with the remaining 29.4% patients predominantly white.

In 1985, there were 949 amniocenteses per 2,578 live births to women 35 and older giving a utilization rate of 36.8%. In 1986, 928 amniocenteses were performed out of 2,720 live births to women ages 35 and older giving a utilization rate of 34.1%. CVS utilization was found to be 5.8% in the advanced maternal age group for 1986. Thus, the overall utilization rate for 1986 was 39.9%. The decrease in the total number of advanced maternal age amniocenteses from 1985 to 1986 was found to be significant, ($p=.02$). However, the addition of CVS as a prenatal diagnostic alternative has significantly increased overall prenatal diagnosis utilization ($p=.0099$).

Utilization of amniocentesis, CVS, and combined amniocentesis and CVS by county for the most recent year, 1986, are shown in Table 1. Since physician's county of residence rather than maternal county of residence was recorded at the genetic center in Charleston, those data are excluded from county utilization calculations. However, since most Charleston referrals come from the nine surrounding counties, those numbers are combined to give a pooled utilization estimate for the "Low Country" region. Using known amniocentesis or CVS utilization rates for each year, the expected number of amniocentesis or CVS procedures was calculated for each county for which data were available, and Chi Square analysis was used to identify those counties whose utilization rates differed significantly from the average utilization for the state (Table 1). Overall, eight counties were found to have rates significantly lower than the average utilization rate. Conversely, Richland county and the pooled Low Country region had significantly greater utilization rates.

During 1985, amniocentesis was performed on 590 white patients, 142 non-whites, and 216 whose race was not recorded. In 1986, there were 466 amniocenteses on whites, 168 on

non-whites, and 294 whose race was unrecorded. Chorionic villus samples were obtained from 154 whites and four blacks during 1986. There were 1,573 total white live births to women above age 35 in 1985, and 1,005 non-white. In 1986, there were 1,618 total white live births and 1,102 non-white live births among women above age 35. Adjusting for the proportion of amniocenteses of unknown race, there was a significant decrease in prenatal diagnosis test utilization between different racial groups in both years studied. In 1985, whites had a utilization rate of 41.0% while non-whites had a rate of 15.4% ($p<.001$). In 1986, overall prenatal diagnosis utilization among whites over 35 years of age was 43.0% compared with 17.5% for non-whites ($p<.001$).

A highly significant racial difference was observed for CVS utilization. 97.5% of the CVS procedures performed on women above age 35 were to white patients. Utilization rates were 10.7% and 0.4% for whites and non-whites respectively ($p<.001$).

Counties were identified as urban if the county population size was greater than 200,000 people. Only four counties in South Carolina could be classified as urban: Charleston, Greenville, Richland and Spartanburg. Since maternal county of residence was not recorded in the Low Country Region data, these numbers were excluded from data calculations. Amniocentesis utilization was 47.1% for urban women in 1985 compared with 29.0% for rural women ($p<.001$). Similarly for 1986, amniocentesis utilization was 38.2% for urban woman and 26.2% for rural ($p<.001$). CVS utilization rates were 14.2% and 3.7% for urban and rural patients respectively ($p<.001$). Overall prenatal diagnosis rates for 1986 were 52.3% for urban and 29.8% for rural patients ($p<.001$).

Significant differences across the board were also found for utilization by private referrals compared with health department referrals. While part of the observed difference would be expected based on the racial distributions of the two groups, analysis of health department referrals showed significantly lower prenatal diagnosis utilization rates than expected with race correction for both 1985 and 1986. The observed utilization rate for health department patients in 1985 was 11.2% compared with a

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TABLE 1

**AMNIOCENTESIS, CHORIONIC VILLUS SAMPLING (CVS) AND
OVERALL PRENATAL DIAGNOSIS UTILIZATION RATES BY
SOUTH CAROLINA COUNTIES FOR 1985 AND 1986**

<i>County</i>	<i>1985</i> <i>Amnio</i>	<i>1986</i> <i>Amnio</i>	<i>1986</i> <i>CVS</i>	<i>1986</i> <i>Total</i>
Abbeville	26.1	13.0	0.0	13.0
Aiken	27.8	24.7	0.0	24.7
Allendale	33.3	22.2	0.0	22.2
Anderson	37.8	48.6	0.0	48.6
Bamberg	42.9	53.3	6.7	60.0
Barnwell	30.8	22.2	0.0	22.2
Beaufort	42.7*	42.9*	1.1	44.0#
Berkeley	42.7*	42.9*	1.1	44.0#
Calhoun	25.0	50.0	12.5	62.5
Charleston+	42.7*	42.9*	2.6	45.5#
Cherokee	0.0	4.2	0.0	4.2
Chester	4.2	11.5	3.8	15.3
Chesterfield	8.7	16.7	0.0	16.7
Clarendon	6.1	10.7	0.0	10.7
Colleton	42.7*	42.9*	0.0	42.9#
Darlington	42.5	29.3	9.8	39.0
Dillon	5.9	11.1	5.6	16.7
Dorchester	42.7*	42.9*	2.9	45.8#
Edgefield	11.1	38.5	0.0	38.5
Fairfield	35.7	14.3	4.8	19.0
Florence	21.5	28.4	2.9	31.4
Georgetown	42.7*	42.9*	4.3	47.2#
Greenville+	40.7	42.3	5.1	47.4
Greenwood	27.0	33.3	0.0	33.3
Hampton	42.7*	42.9*	0.0	42.9#
Horry	42.7*	42.9*	1.9	44.8#
Jasper	42.7*	42.9*	0.0	42.9#
Kershaw	23.5	12.5	15.6	28.1
Lancaster	30.0	18.2	0.0	18.2
Laurens	21.7	38.1	0.0	38.1
Lee	18.2	23.5	0.0	23.5
Lexington	48.0	28.1	9.4	37.5
McCormick	12.5	16.7	0.0	16.7
Marion	14.3	3.8	0.0	3.8
Marlboro	4.5	0.0	4.8	4.8
Newberry	47.6	11.1	14.8	25.9
Oconee	25.0	44.4	0.0	44.4
Orangeburg	25.3	39.5	1.3	40.8
Pickens	16.0	9.1	4.5	13.6
Richland+	64.6	37.1	25.5	62.6
Saluda	50.0	9.1	0.0	9.1
Spartanburg+	21.4	32.6	5.4	38.0
Sumter	34.7	25.0	2.8	27.8
Union	6.3	15.4	0.0	15.4
Williamsburg	42.7*	42.9*	0.0	42.9#
York	27.5	36.0	6.0	42.0

* rate calculated from pooled data from ten Low Country counties served by Charleston genetic center.

includes pooled amniocentesis utilization rate and CVS rate

+ signifies county classified as urban (population greater than 200,000)

Percentage of eligible (i.e., 35 years of age and older) women in each South Carolina county who had amniocentesis (amnio) or CVS performed in 1985 or 1986.

race corrected expected rate of 22.93% ($p < .001$). For 1986, the observed utilization was 9.9% compared with an expected rate of 25.0% ($p < .001$). CVS, although available to approximately one third of the health department patients (patients served by one of the three genetic centers), was used exclusively by private referrals.

DISCUSSION

In recent years, there has been an expansion of genetic services for prenatal diagnosis. Numerous studies have been made to determine the utilization and availability of these services to eligible women.^{3, 7} This study examined amniocentesis and CVS utilization among South Carolina women 35 years of age and older in order to ascertain the extent to which genetic services were accessible and available to this group, and to measure what effect CVS had, if any, on amniocentesis utilization.

Other researchers have predicted that utilization of prenatal diagnosis, specifically amniocentesis, would continue to increase year by year.^{3, 4} This effect was noted in the South Carolina data as total utilization of prenatal diagnosis increased from 1985 to 1986. The decrease in amniocentesis utilization reflects the fact that a significant portion of the over-35 population are now opting for the earlier CVS test. As CVS becomes more established, one might expect the percentage of advanced maternal age women choosing amniocentesis to continue to decrease.

South Carolina's overall utilization rate of 39.9% was greater than might be expected from a state with a predominantly rural population. In a study limited to women over the age of 40, Sokal et al.,⁸ found utilization rates in a rural population to be as low as 9%. Although New York utilization rates were 35.3% in 1980⁹ and 40% in 1981,¹⁰ utilization rates in other parts of the country are typically lower.³ Ohio reported a 23.4% utilization rate for 1983⁴ which is well below the current South Carolina rate. Thus, it appears that utilization of genetic services in South Carolina is comparable to published utilization rates from other areas of the United States.

The utilization rate for CVS of 5.8% is perhaps surprising considering the newness of the test. By contrast, early utilization rates for am-

niocentesis in 1972 were found to be as low as 0.21%.⁴ Given the rapid acceptance of CVS among South Carolina physicians and patients during the first complete year for which the procedure was offered and the continuing increase in demand (unpublished observation), it appears that CVS has the potential to overtake amniocentesis as the prenatal diagnostic procedure of choice by older women.

Utilization rates for South Carolina counties in 1986 ranged from 3.8% to 62.6% indicating a wide disparity among counties (Table 1). The county rates supported findings from previous studies which report lower utilization rates in rural counties and higher rates in urbanized areas.^{3, 4} Seven counties had rates below 15%. According to Hook et al.,¹⁰ rates of 15% or less suggest that not all eligible women are aware of the procedure or that facilities currently cannot meet the demand for services. Since facilities for South Carolina are and have been sufficient to meet the demand for genetic services, there may be a need for educational programs in these counties to increase patient awareness.

South Carolina's utilization rates support the findings in previous studies where utilization rates were generally noted to be higher among white women than non-white women.^{3, 4, 9} From the total number of live births to South Carolina women over the age of 35 for 1985, 61.0% of births were to white women and 39.0% births were to non-whites. By contrast, 80.6% of all amniocenteses were for white women and only 19.4% were for non-white women. It is puzzling why this difference should exist. Other authors have not found significant racial differences in attitude toward abortion which might affect utilization.⁹ Perhaps there are underlying differences in attitudes toward medical care or in the social structure of the family (e.g. attitudes towards the raising of a handicapped child) which could account for the low observed utilization of prenatal diagnosis among non-white women.

A significant difference was also found in the utilization between private physician and health department referrals. Utilization was typically much greater for private patients. While prenatal testing is available at no cost to all advanced maternal age patients receiving primary prenatal care through county health departments in South Carolina, transportation

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problems to and from genetic centers and other financial constraints may contribute to the low observed utilization in this population as well.

SUMMARY

An increase in utilization of prenatal diagnosis was observed from 1985 to 1986 in South Carolina. The overall rate of 39.9% for 1986 is comparable with other areas of the U.S. Utilization was correlated with geographic residence, race, and referral source. While there was considerable variation in prenatal diagnostic test utilization between counties in South Carolina, overall utilization rates were reasonably high and continued to increase from 1985 to 1986. It will be interesting to see what effect CVS has on overall utilization rates as this new procedure becomes more established throughout the state. □

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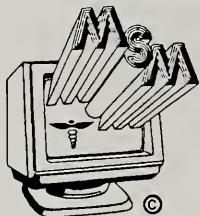




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IDIOPATHIC ARTERIOVENOUS RENAL VASCULAR MALFORMATION TREATED BY EX VIVO REPAIR*

WILLIAM R. MORGAN, M.D.
JAMES A. MAJESKI, M.D., Ph.D.**

Renal arteriovenous malformation was first reported by Varela in 1928, who described the lesion discovered at autopsy in a 27-year-old man.¹ The improvement of imaging techniques has made this entity more easily diagnosed and more than 200 cases have been reported.²

Renal arteriovenous fistulas may be easily detected by a variety of noninvasive imaging techniques and therefore are now being readily identified in asymptomatic patients being evaluated for other reasons. This case describes a patient with a typical idiopathic or aneurysmal type of renal arteriovenous malformation (AVM) detected incidentally during evaluation after a motor vehicle accident.

CASE REPORT

A previously healthy 44-year-old white male was the unrestrained driver in a single motor vehicle accident. He was hypotensive at the scene (systolic blood pressure of 45 mm Hg.) and was transferred to this institution via helicopter. Six liters of lactated Ringer's solution were infused and MAST trousers were applied during transit. On arrival the patient's blood pressure was 110/67. There was a severe laceration involving the left arm with arterial bleeding. Physical examination revealed no signs of abdominal or flank trauma, no audible bruits and no palpable abdominal masses. Chest x-ray demonstrated no evidence of cardiomegaly or heart failure. Other injuries included a fracture dislocation of the left acetabulum and a closed head injury. Urinalysis results revealed six to ten red blood cells per high power field. Intravenous pyelo-

gram showed prompt function, however, there was a suggestion of a mass in the hilum of the right kidney. Computed tomography of the abdomen revealed a five by six centimeter vascular lesion involving the hilum of the right kidney. (Figure 1)

Arteriography (Figure 2) further delineated the lesion as a smooth, thin-walled vascular mass involving an upper pole segmental artery. No early venous filling was demonstrated. There was no extravasation and no retroperitoneal hematoma. The preoperative diagnosis was traumatic pseudoaneurysm. After stabilization the patient was taken to the operating room and explored through a midline abdominal incision. Vascular control of the renal vessels was obtained from the midline. The right colon was reflected and the right kidney was explored. There was no evidence of renal trauma and no retroperitoneal hematoma. A pulsatile mass could be palpated in the hilum of the kidney. Because of the intrarenal nature of the lesion, it was determined that an ex vivo approach would more easily afford a renal conserving repair of what was initially



FIGURE 1. Computerized tomogram.

* From the Departments of Urology and Surgery, Medical University of South Carolina, Charleston, S. C.

** Address correspondence to Dr. Majeski at the Department of Surgery, Medical University of South Carolina, Charleston, S. C. 29425.



FIGURE 2. Right renal arteriogram.

felt to be a pseudoaneurysm. The renal vessels were ligated and divided at their origins. The ureter was mobilized to the pelvic brim. The kidney was perfused with cold heparinized Ringer's lactate solution. Ex vivo exploration demonstrated a large sacular malformation of the renal artery in continuity with the venous circulation which had not been demonstrated on arteriography. There was no hematoma or inflammatory change to suggest that the lesion was related to the recent trauma. On the contrary, the vascular walls appeared well formed, suggesting a previously existing chronic phenomenon. The venous channel was ligated and the artery was reconstructed with multiple interrupted 6-0 prolene sutures. The renal unit was then transplanted to the right pelvis in an inverted position with vascular anastomosis to the common iliac vessels. Postoperative renal scan confirmed normal renal function bilaterally and the patient recovered uneventfully. Pathologically the arteriovenous fistula was confirmed from the tissue removed during the operative procedure.

DISCUSSION

Renal arteriovenous malformations may be classified as either congenital or acquired. Congenital fistulas have a cirrhotic appearance angiographically with multiple arteriovenous communications. Acquired fistulas are smooth, round, solitary and may result from a variety of causes including percutaneous renal biopsy,

trauma, fibromuscular dysplasia, surgery and malignancy.³ A third category, idiopathic or spontaneous arteriovenous malformations (AVM) are typically aneurysmal in appearance with smooth and round borders.

Angiographically similar to acquired fistulas, these lesions may be congenital or arise from an unknown acquired etiology.⁴ Some investigators have suggested that they arise from a congenital aneurysm of the renal artery which spontaneously ruptures into a nearby vein.⁵ Because no previous predisposing factors were present in this case and the angiographic appearance was not typical for the cirrhotic type, this patient's fistula falls into the idiopathic or aneurysmal group. Most patients with renal arteriovenous fistulas present with symptoms directly related to the lesion, such as heart failure, renal ischemia, (hypertension) or bleeding. Hematuria has been reported to occur in 33% to 65% of cases and is found more often in the congenital variety. Other common clinical findings include: abdominal bruits (75%), cardiomegaly (57%), diastolic hypertension (50%) and pain (34%).⁶

The diagnosis is usually confirmed angiographically with demonstration of early venous runoff. This however was not seen in this case, leading to a preoperative diagnosis of traumatic pseudoaneurysm, which led to a surgical exploration. Nadjafi reported a similar case in which venous runoff was not seen on arteriography and diagnosis was also delayed until arteriovenous connections were confirmed at surgery.⁷ In patients with post renal biopsy fistulas, management has traditionally been conservative as approximately 70% will close spontaneously within 18 months. Expectant management of traumatic AVM's other than post renal biopsy has been less successful and surgical repair is often required.^{5, 6}

Small asymptomatic congenital lesions may be followed conservatively in selected cases.⁸ Follow up studies must be obtained as asymptomatic lesions have been known to enlarge rapidly during conservative observation and expectant management is not without risk.⁹ Intervention is generally indicated for symptomatic lesions not secondary to renal biopsy. Recently, transcatheter arteriographic embolization has been employed using a wide variety of occlusive agents. Risks include re-

currence, renal infarction, hypertension and pulmonary embolization through the fistula.⁵ When aneurysmal or occlusive disease is present, open surgical repair is more effective.¹⁰ Partial or total nephrectomy is the traditional form of therapy. More recently, renal sparing techniques have become popular. Simple ligation of feeder vessels is associated with distal infarction as well as a significant rate of recurrence. Ligation of individual vessels and arterial reconstruction is the favored approach.⁶ A direct approach to the vessels may, however, be technically difficult. With the advent of bench surgery, exposure of these lesions has improved making reconstruction more feasible. The technique of ex vivo renal surgery is well described and has been employed by others for repair of renal arteriovenous fistulas. Three such cases have been reported in the literature. Dean employed the technique in a repair of a congenital renal arteriovenous fistula.¹¹ Nadjafi used an ex vivo approach to salvage a failed repair of a renal AV fistula⁷ and Munda repaired an arteriovenous calyceal fistula in a functioning living related transplant also using an ex vivo technique.¹² The basic principle of ex vivo surgery of the kidney has allowed for the salvage and repair of many organs which otherwise would have been lost. The indications for renal autotransplantation are still evolving. A working knowledge of this technique should be in the armamentarium of the surgeon who treats renal disease. The technique should be kept in mind when dealing with renal tumors, trauma and vascular lesions especially in patients with a solitary kidney. The most common indication for extracorporeal surgery on the kidney today is renovascular occlusive disease. Advantages include a bloodless field, use of an operating microscope if necessary, unhurried application of microvascular techniques and the ability to obtain autogenous vessels, either artery or vein, for reconstruction. The first autotransplant was performed by Hardy for an iatrogenic ureteral injury in 1963. The ureter is usually left intact in most of these procedures but easily can be reimplanted into the bladder if necessary.

The trauma surgeon should be able to employ this technique if the patient is stable and

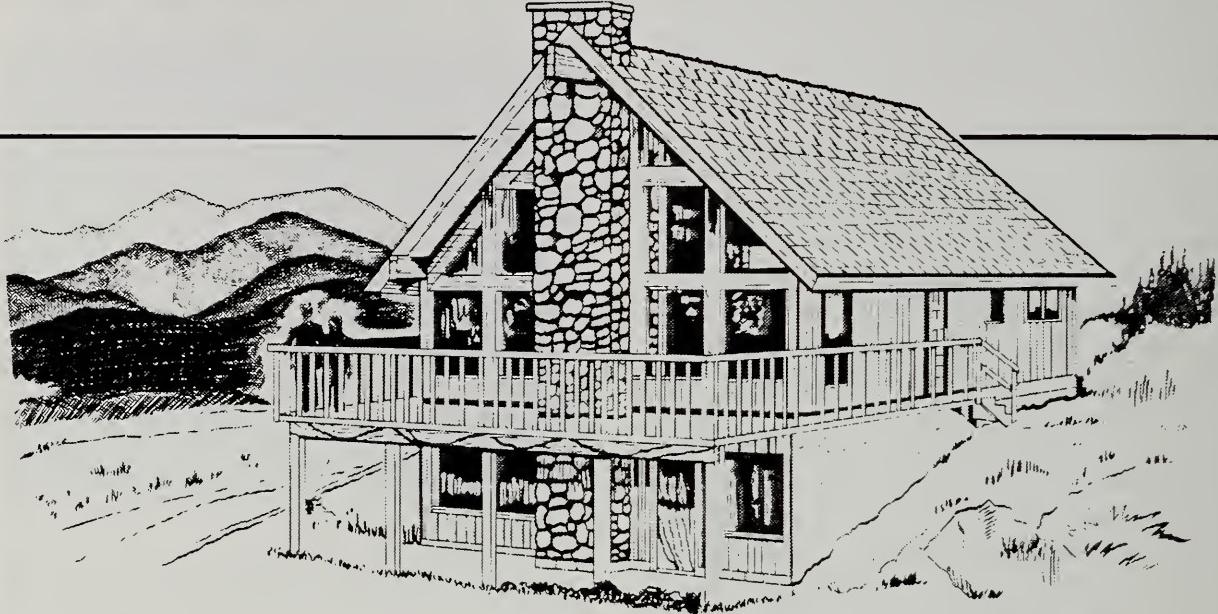
other life threatening injuries do not add any further risk to the operative procedure. Extracorporeal renal surgery in the trauma situation can occasionally be hastened by a two-team approach. The incidence of complications from the use of ex vivo surgery of the kidney is low. The use of this technique has been reported for splitting a horseshoe kidney for use in transplantation surgery.

In conclusion, renal AVM is an unusual disease which is being diagnosed with more frequency. For symptomatic lesions renal conserving treatment is favored. When surgical reconstruction is indicated an ex vivo approach provides excellent exposure making repair more feasible. This approach was used in a 44-year-old trauma victim who was explored because of a suspected renal artery pseudoaneurysm which at surgery was found to be a renal arteriovenous malformation. □

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SCMIA NEWSLETTER

OCTOBER 1989

MEDICAID UPDATE

Coverage Extended to Children up to Age Seven

Medicaid covers children age one to six if they live in families with income below 100 percent of poverty. As of October 1, Medicaid coverage has been extended to children up to age seven if their family income is below 100 percent of poverty.

Medicaid Coverage for the Aged, Blind and Disabled

Medicaid coverage for the aged, blind and disabled with income below 100 percent of the federal poverty guidelines began October 1, 1989. Medicaid already covered aged, blind and disabled persons who had Part A Medicare benefits, income below 100 percent of the federal poverty guidelines and resources below certain guidelines. These persons are Qualified Medicare Beneficiaries (QMBs). The new coverage group allows persons who meet these same income and resource guidelines to be eligible for Medicaid even if they do not have Part A Medicare.

With reference to existing coverage (prior to October 1) for QMBs, less than 1,500 have been approved for Medicaid to date, whereas HHSFC had expected approximately 20,000 QMBs to be eligible by the end of 1989. The number of eligibles is considerably lower than expected and HHSFC enlists your support in referring the people you serve if they have (a) Part A Medicare benefits; (b) income below \$525 per month for an individual or \$700 per month for a couple; and (c) resources below \$5,500 for an individual or \$9,000 for a couple.

QMBs apply for Medicaid by calling a toll free number, 1-800-922-5936. Persons in Columbia should call 765-2312. Self-assessment guides have been developed to help people decide if they meet the guidelines. If you would like copies of these guides for your waiting rooms, you may request them by calling the Division of Eligibility at 1-253-6128.

Increased Reimbursement Rates

In an effort to improve access to quality medical care for Medicaid recipients, HHSFC has increased the physician reimbursement rates for many commonly performed procedures. Following is a partial list of those rates which are effective for dates of service on or after July 1, 1989.

<u>Office Visit</u>	<u>Code</u>	<u>Description</u>	<u>Before 7/1</u>	<u>After 7/1</u>
	90010	New patient (limited)	\$25.00	\$30.00
	90050	Established patient (limited)	\$18.00	\$20.00

Hospital care code 90215 (Initial-intermediate History) has been increased from \$27.90 to \$41.00, and code 90220 (Initial-comprehensive History) has increased from \$33.30 to \$55.00.

Healthy Adult Physical Exams

Effective for dates of service on or after July 1, 1989, HHSFC will reimburse physicians for performing adult physical examinations. Insurance clerks should bill HHSFC for these exams using procedure code 90750 and diagnosis code V70.9. The reimbursement rate is \$100.00.

Healthy Child Physical Exams

Healthy child (20 years of age or younger) physical exams (screenings) are still only reimbursable through the EPSDT program. Reimbursement is set at \$45.00 for children under one year old and \$35.00 for older children and adolescents. If you are a primary care physician and would like more information regarding the EPSDT program, call Sandra McCord or Paul Trulley at 1-253-6121.

Procedure Codes for Back Transfer of NICU Graduates

To encourage pediatricians and family practitioners to accept NICU graduates back to Level I and Level II hospitals and hopefully establish a medical home for these infants, HHSFC has created the following procedure codes effective for dates of service on or after July 1:

<u>Code</u>	<u>Description</u>	<u>Reimbursement Rate</u>
S9661	Initial Hospital Exam for an Infant Transferred from a Level III NICU	\$100.00
S9662	Extended or Intermediate Subsequent Hospital Care for an NICU Graduate Transferred from a Level III Hospital	\$ 50.00
S9663	Limited or Brief Subsequent Hospital Care for a NICU Graduate from a Level III NICU	\$ 30.00
S9660	Initial Office Visit for a NICU Graduate	\$ 80.00

If you have questions, please call your program manager at 1-253-6134.

PHYSICIAN BILLING UNDER CROSS-COVERAGE ARRANGEMENTS

The SCMA has received many calls from SC physicians in response to a September 4, 1989 article in Medical Economics which described the trouble physicians in another state encountered with their Medicaid agency when they billed for their patients although another physician had covered for them.

In response to an SCMA request for clarification, BC/BS of SC has informed us that, according to the Medicare Carrier's Manual, Section 5211, BC/BS will allow reimbursement for "personal identifiable services that require performance by a physician." However, it has been their practice as the carrier to verify services rendered by checking to see if physicians are in practice together or if someone else covered for the attending physician in his/her absence. As long as both physicians have not submitted duplicate bills or if they are rendering medically necessary concurrent care, those services would not be questioned.

Preliminary information from the Health and Human Services Finance Division indicates there is no problem for physicians billing under cross-coverage arrangements with regard to Medicaid. However, HHSFC has requested a legal opinion prior to issuing a more definitive statement.

SCMA HURRICANE RELIEF FUND

The SCMA is accepting contributions to provide assistance to the many thousands of homeless in the state. A national appeal has been made to the members of the AMA for contributions to the relief fund which has been established. If you are able to make a contribution, please send it to: Relief Fund, SC Institute for Medical Education and Research, PO Box 11188, Columbia, SC 29211. All contributions are tax deductible when checks are made payable to SCIMER.

ATTENTION: DISABILITY DETERMINATION CONSULTANTS

The Disability Determination Division (Vocational Rehabilitation Department) office building in Charleston was heavily damaged during hurricane Hugo. Although temporary office space is being prepared, case processing operations have been transferred to the Columbia office until preparations are completed. Physicians who perform consultative examinations on Social Security Disability applicants scheduled by the Charleston office, and who need to contact that office, should call the Charleston office telephone number and it will be automatically routed to the Columbia office. Those physicians who dictate reports into the Charleston Tele-Dictation system should continue to use the same telephone number. Dictation will automatically be routed into the Columbia office Tele-Dictation equipment for processing.

All consultative physicians in the following counties are urged

to call the Charleston office telephone number (1-800-868-0100) and advise of any changes in office location, telephone number or scheduling changes so that the scheduling unit can make contact: Horry, Williamsburg, Georgetown, Berkeley, Dorchester, Charleston, Colleton, Hampton, Beaufort and Jasper. Normal examination scheduling may be temporarily disrupted; however, it should return to normal when necessary repairs are completed to the Charleston office.

REPORT FROM THE SCMA YOUNG PHYSICIANS' SECTION

Gerald E. Harmon, MD, Chairman of the SCMA Young Physicians' Section, has submitted the following report on the AMA Young Physicians Assembly held in Chicago in June, 1989:

The assembly considered 31 resolutions and nine governing counsel reports, with 12 resolutions being sent for consideration to the AMA House of Delegates. An additional five resolutions will be sent to the House of Delegates at the 1989 AMA Interim meeting. The Young Physicians' Section voiced its opposition to tobacco sales to minors, mandatory Medicare expenditure targets as well as regional or national reimbursement caps, and unrestricted sale and ownership of assault weapons. The section voiced support for a maternity leave policy for physicians in practice, child care at national conferences, cholesterol screening, nutrition education, and participation in organized medicine by minority physicians.

A resolution was made that the AMA conduct a survey to evaluate potential problems with voluntary health screening programs regarding the possible accuracy and efficacy as well as communicative problems for those programs not directed by a physician. A young physician, Dr. Nancy Dickey, was elected to the AMA Board of Trustees at this meeting.

Delegate Steven Hulecki, MD, has reported a number of problems felt to be particularly important for young physicians. He, Dr. Roger Gaddy and Dr. Harmon solicit the input and suggestions of all young physicians in the state. This input can then be provided to the AMA and the SCMA to be carried to the appropriate legislative bodies. The Young Physicians' Section appreciates the involvement they have had thus far and looks forward to continued strengthening of the section with the SCMA and the AMA. Copies of the complete reports by Drs. Gaddy and Hulecki are available by calling Dr. Gerald Harmon at 1-527-4442 or Julia Brennan at SCMA Headquarters.

SCMA DIRECTOR OF LEGAL AFFAIRS

The SCMA announces the employment of Stephen P. Williams as Director of Legal Affairs effective September 15, 1989. Steve received his BA, cum laude, from Wofford College in 1978 and his JD from the University of South Carolina in 1981. He was in private practice in Greenville for two years and for the last

six years has been an attorney with the SC Office of Appellate Defense. In addition to his legal duties with the SCMA, Steve will staff the Medical Ethics and Mediation Committees.

RETENTION OF MEDICAL RECORDS

A physician should take the following time periods into consideration for determining the length of time to store his or her patient records:

1. Malpractice Considerations

The Statute of Limitations for medical malpractice actions is three years from the date of discovery or when it reasonably ought to have been discovered, not to exceed six years from the date of occurrence. Disabilities, such as mental incompetence or imprisonment of the patient, can extend this period for an additional five years.

If the action concerns the placement or leaving of a foreign object in the body, the action must be commenced within two years from the date of discovery or when the defect reasonably ought to have been discovered; provided that in no event shall there be a limitation on commencing the action less than three years after the placement or leaving of the apparatus.

Physicians treating minors should note that an action could be brought up to 13 years from the date of the procedure leading to the lawsuit or claim. These time periods apply to cases arising or accruing after April 5, 1988.

2. Physicians should notify their patients of their retirement or closing of the office to make arrangements for transfer of the patient's records to another physician. The retiring physician should keep the original file and make copies for the patient. The same is true for a physician closing his office for reasons other than retirement.

Questions about these matters may be directed to Steve Williams, Director of Legal Affairs, at the SCMA.

THE CENTER FOR REHABILITATION TECHNOLOGY SERVICES

The South Carolina Department of Vocational Rehabilitation has established the Center for Rehabilitation Technology Services, one of two national rehabilitation engineering centers funded to address service delivery needs for rehabilitation technology. The center is responsible for establishing a comprehensive statewide network of rehabilitation technology services in the state. As part of its mission, CRTS will also be a resource for the southeast region and will disseminate project findings on rehabilitation technology service delivery activities to interested individuals.

CRTS will provide information, training and technical assistance on applications of rehabilitation technology. A primary goal is to establish effective procedures and methods to make assistive technology and technology related resources available to individuals with disabilities in South Carolina.

For more information, please write to the Project Director, Center for Rehabilitation Technology Services, SC Vocational Rehabilitation, PO Box 15, West Columbia, SC 29171-0015, or call 1-739-5362.

PUBLICATIONS AVAILABLE

The AMA's Division of Health Science has produced written guidelines to train physicians to do HIV counseling and HIV blood test counseling. Entitled, "HIV Blood Test Counseling: AMA Physician Guidelines," they are \$2.00 each for five to 10 copies (minimum order is five); \$1.50 each for 11 to 49 copies; \$1.00 each for 50 to 199 copies; and \$.75 each for 200 or more copies. To order, send a check payable to the AMA to the Division of Health Science, 535 N. Dearborn, Chicago, IL 60610. For more information, call Dr. Rinaldi at (312) 645-5563.

Hearing impaired children are not identified in the US until an average age of 2 1/2 years. By contrast, the average age of identification in Israel and Great Britain is 7 to 9 months. The Surgeon General of the Public Health Service has set a goal that by the year 2000, 90 percent of all children with significant hearing impairments will be identified by 12 months of age. The SCMA has available an information sheet for parents and a newspaper column on "Early Identification of Hearing Problems in Children." For sample copies, contact Kim Fox at SCMA Headquarters in Columbia. In addition, feel free to use the toll free Infant and Child Health Hotline (1-800-922-9234) and make this number available to your patients with small children.

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KNOWLEDGE, PERCEIVED RISK, AND BELIEFS ABOUT AIDS AMONG HIGH SCHOOL AND COLLEGE STUDENTS IN SOUTH CAROLINA*

FRANCISCO S. SY, M.D., Dr.P.H.
YVONNE FREEZE-McELWEE, M.S.P.H.
CAROL Z. GARRISON, Ph.D.
KIRBY L. JACKSON, B.A.**

Since 1981, the cumulative number of AIDS cases in the United States has rapidly increased to 94,280 with 537 of these cases being reported from South Carolina.^{1, 2} In the absence of an effective curative drug or vaccine, the most important preventive measure available against AIDS and the transmission of HIV infection is education aimed at promoting and facilitating behavior change.³ People who practice high risk behavior need to be targeted with strategies tailored for these specific groups.⁴ The adolescent population is an important group that requires education since many teens are sexually active and some will experiment with intravenous drugs, putting them at high risk for HIV infection.⁵ The increasing rate of teenage pregnancy and sexually transmitted diseases among adolescents further supports the idea that adolescents may be at high risk for HIV infection.⁵ The fact that less than one percent of the currently diagnosed total AIDS cases in the United States are adolescents may be misleading since AIDS has a long incubation period.¹ Many individuals may acquire their infection as adolescents but not develop the clinical manifestations of HIV infection and AIDS until later in life as adults. The purpose of this study is to determine the

knowledge, perceived risk and beliefs about AIDS among high school and college students in South Carolina. The results of this study will be useful to physicians, nurses, health educators and teachers in developing effective AIDS education programs for students.

METHODS

A cross-sectional study of high school and college students in South Carolina was conducted in 1987. The study questionnaire was originally developed and used with high school students in San Francisco by DiClemente, Zorn, and Temoshok.⁶ Several questions were slightly modified for use in South Carolina. Thirty questions pertained to knowledge of AIDS, while seven questions evaluated the students' perceived risk of acquiring AIDS and three questions examined beliefs about the seriousness of the AIDS epidemic.

The study questionnaire was administered to students in health and science classes in an urban public high school. Data from college students were collected from (1) those attending a biology seminar on AIDS and sexually transmitted diseases at an all-male southern military college and (2) undergraduate students enrolled in a physical education class at a state university. All students present the day the survey was conducted completed the questionnaire.

The data were first analyzed using Chi-square tests to determine if the three educational groups differed on their response to the individual questionnaire items. Differences were also examined by gender. An overall knowledge score was calculated for each of the participants as the sum of the responses to knowledge questions. For each question, cor-

* From the Department of Epidemiology and Biostatistics, School of Public Health, University of South Carolina, Columbia, S. C. (Drs. Sy and Garrison and Mr. Jackson); and the South Carolina Department of Health and Environmental Control, Catawba Health District, Rock Hill, S. C. (Ms. McElwee). This work was supported by the Carolina AIDS Research and Education (CARE) Project at the University of South Carolina.

** Address correspondence to Dr. Sy at the Department of Epidemiology and Biostatistics, School of Public Health, University of South Carolina, Columbia, S. C. 29208.

rect, incorrect, and don't know responses were assigned values of 1, -0.5, and 0 respectively. Mean knowledge scores (possible range -15 to 30) were obtained. To evaluate the students' perception of risk for acquiring AIDS, a "perceived risk" variable (possible range 0-7) based on responses to perceived risk questions was created. Responses indicating a higher perceived risk were assigned a value of 1. Low perception of risk and don't know responses were assigned a value of 0. Similarly, a "seriousness" variable (possible range 0-3) was developed from responses to questions regarding students' beliefs as to the seriousness of the AIDS epidemic. Responses indicating serious concerns were given a value of 1. Not serious concerns and don't know responses were given a value of 0. Analysis of variance was used to investigate differences in mean knowledge, perceived risk and seriousness scores by educational group and gender.

RESULTS

The total study population ($N=345$) consisted of 211 high school students and 134 college students. The demographic characteristics of these individuals are shown in Table 1. Fifty percent of the study participants were male, 61% were black, and 61% were high school students. Age ranged from 13 to 41 years. The high school population was predominantly black, while the college population

was predominantly white. The military school population was all male.

The mean knowledge scores for high school, military college and state university students were 72%, 86% and 85% respectively. Responses to selected knowledge questions for the three groups are shown in Table 2. Significantly higher percentages of college students, both military college and state university students, chose correct answers than did high school students. However, several exceptions occurred. A higher percentage of high school students than military college students answered correctly the questions concerning perinatal transmission and the high lethality of AIDS. A higher percentage of college students (98-100%) than high school students (81-87%) knew the parenteral routes of HIV transmission. Likewise, more college students (91-94%) than high school students (79%) knew that using condoms can lower the risk of acquiring HIV infection. Twenty percent of the high school students believed that AIDS can be cured if treated early. A significant number (27-34%) of both high school and college students thought that an AIDS vaccine had already been developed.

Table 3 lists responses to perceived risk questions. A higher percentage of high school students (89%) than college students (55-72%) were afraid of getting AIDS. A high percentage (61-73%) of each of the three groups would take

Table 1. Demographic Characteristics of Study Participants by Educational Group

	High School N=211	Military College N=44	State University N=90
% of Sample	61.2	12.8	26.1
Sex:			
Male	46.9	100.0	33.3
Female	53.1	0.0	66.7
Race:			
Black	94.8	4.5	6.7
White	4.3	93.2	93.3
Other	0.9	2.3	0.0

STUDENTS' KNOWLEDGE ABOUT AIDS

Table 2. Responses to Selected Knowledge Questions for Each of the Three Groups

	High School			Military			College			State University		
	True %	False %	Don't know	True %	False %	Don't know	True %	False %	Don't know	True %	False %	Don't know
1. AIDS is a medical condition in which your body cannot fight off diseases.	70.9	13.1	16.0	97.7	2.3	0.0	85.2	5.7	9.1			
2. AIDS is caused by a virus.	54.8	27.9	17.3	84.1	2.3	13.6	69.0	17.2	13.8			
3. If you kiss someone with AIDS you will get the disease.	26.2	52.9	21.0	11.6	69.8	18.6	11.1	71.1	17.8			
4. AIDS can be spread by using someone's personal belongings like a comb or hairbrush.	9.5	72.4	18.1	0.0	84.1	15.9	1.1	87.8	11.1			
5. Having sex with someone who has AIDS is one way of getting it.	96.7	2.4	1.0	100.0	0.0	0.0	100.0	0.0	0.0			
6. If a pregnant woman has AIDS, there is a chance it may harm her unborn baby.	91.5	1.9	6.6	90.9	0.0	9.1	93.3	0.0	0.0			
7. Most people who get AIDS usually die from the disease.	91.4	3.3	5.2	86.4	9.1	4.5	90.0	6.7	3.3			
8. Using a condom during sex can lower the risk of getting AIDS.	79.0	9.0	11.9	90.9	2.3	6.8	94.4	0.0	5.6			
9. You can get AIDS by shaking hands with someone who has it.	3.8	84.8	11.4	4.5	90.9	4.5	2.2	95.6	2.2			
10. Receiving a blood transfusion with infected blood can give a person AIDS.	81.0	7.6	11.4	100.0	0.0	0.0	100.0	0.0	0.0			
11. You can get AIDS by sharing a needle with a drug user who has the disease.	86.6	3.8	9.6	97.7	0.0	2.3	97.8	0.0	2.2			
12. AIDS is a life-threatening disease.	93.3	2.9	3.8	95.5	2.3	2.3	100.0	0.0	0.0			
13. People with AIDS usually have lots of other diseases as a result of AIDS.	31.6	28.2	40.2	90.9	4.5	4.5	72.2	6.7	21.1			
14. AIDS can be cured if treated early.	19.7	40.9	39.4	9.1	72.7	18.2	3.3	77.8	18.9			
15. A new vaccine has recently been developed for the treatment of AIDS.	31.9	18.6	49.5	34.1	34.1	31.8	26.7	33.3	40.0			

a free blood test to see if they had the AIDS virus if such a free test were available. A few (4-11%) high school and college students agreed with the statement, "Living in South Carolina increases my chances of getting AIDS."

Responses to questions concerning students' belief about the seriousness of the AIDS epidemic are presented in Table 4. Most of the students (80-92%) disagreed with the statement, "AIDS is not as big a problem as the media suggests." Fewer college students (7-18%) than high school students (27%) claimed that they have heard enough about

AIDS and did not want to hear any more about it. The majority (90-96%) of the high school and college students agreed that it is important that students learn about AIDS in schools. However only 24% to 37% of both high school and college students have reported receiving instruction about AIDS in their school curricula.

Analysis of variance results and means for the knowledge, perceived risk, and seriousness scores by sex and educational group are shown in Table 5. High school students had the lowest mean knowledge score and the lowest mean seriousness score, yet they had the highest

STUDENTS' KNOWLEDGE ABOUT AIDS

Table 3. Responses to Perceived Risk Questions for Each of the Three Groups

	High School			Military College			State University		
	True %	False %	Don't know	True %	False %	Don't know	True %	False %	Don't know
1. I am afraid of getting AIDS.	89.0	8.1	2.9	72.7	20.5	6.8	55.1	36.0	9.0
2. Living in South Carolina increases my chances of getting AIDS.	5.3	61.7	33.0	11.4	54.5	34.1	4.4	73.3	22.2
3. I am not worried about getting AIDS.	35.1	61.5	3.4	31.8	65.9	2.3	33.3	54.5	12.2
4. I am not the kind of person who is likely to get AIDS.	57.6	27.1	15.2	68.2	18.2	13.6	82.2	10.0	7.8
5. I am less likely than most people to get AIDS.	52.6	26.3	21.1	70.5	9.1	20.5	70.0	10.0	20.0
6. I'd rather get any other disease than AIDS.	58.5	24.4	17.1	51.2	20.9	27.9	54.0	10.3	35.6
7. If a free blood test was available to see if you have the AIDS virus, would you take it?	72.7	12.0	15.3	70.5	15.9	13.6	60.9	20.7	18.4

Table 4. Responses to Questions Regarding Beliefs and Availability of AIDS Instruction in Schools for Each of the Three Groups

	High School			Military College			State University		
	True %	False %	Don't know	True %	False %	Don't know	True %	False %	Don't know
1. AIDS is not as big a problem as the media suggests.	3.3	83.8	12.9	2.3	79.5	18.2	0.0	92.2	7.8
2. I've heard enough about AIDS and I don't want to hear any more about it.	26.8	67.9	5.3	6.8	81.8	11.4	17.8	74.4	7.8
3. It is important that students learn about AIDS in school.	93.9	4.3	2.4	95.5	2.3	2.3	90.0	6.7	3.3
4. Have you had any instruction about AIDS in your school curriculum?	37.1	53.8	9.0	29.5	70.5	0.0	23.6	74.2	2.2

mean perceived risk score. Statistically significant differences in the knowledge and perceived risk scores were found between high school and college students. Knowledge, perceived risk, and seriousness scores did not differ significantly between the two college groups. For males, significant differences existed between high school ($\bar{X}=19.74$) and college students (military $\bar{X}=24.9$; state $\bar{X}=24.5$) when considering the knowledge variable. Tukey multiple comparison methods showed that significant differences occurred both between high school males and military college males and between high school males and state university males. For females, signifi-

cant differences occurred between the high school and college students for both knowledge (high school $\bar{X}=19.5$ vs. college $\bar{X}=24.7$) and perceived risk (high school $\bar{X}=3.6$ vs. college $\bar{X}=2.9$).

DISCUSSION

The first published study of students' knowledge of AIDS was conducted by Price et al. in 1985 among high school juniors and seniors in four high schools in Toledo, Ohio.⁷ These investigators found that, overall, students lacked sufficient knowledge about AIDS with males having greater knowledge about AIDS than females. Additionally, few students (27%) were

STUDENTS' KNOWLEDGE ABOUT AIDS

Table 5. Analysis of Variance Results and Means for Knowledge, Perceived Risk, and Seriousness Variables by Sex and by Educational Group

	High School	Military College	State University	F-value	p-value
Knowledge:					
Males	19.7371	24.9773	24.5167	27.19	0.0001*
Females	19.4682	---	24.6583	51.17	0.0001*
Perceived Risk:					
Males	3.6495	3.5909	3.3333	0.64	0.5304
Females	3.6422	---	2.9000	13.36	0.0003*
Seriousness:					
Males	2.3814	2.5682	2.2667	1.65	0.1955
Females	2.5299	---	2.7167	3.22	0.0745

*Significant at $p < .0005$

Note: The military college enrolled only male students.

concerned about contracting AIDS in the study by Price et al.⁷ DiClemente et al., in a questionnaire-based study in 1985 among high school students in San Francisco,⁶ found that high school students possessed some knowledge about AIDS but there was a marked variation in the level of knowledge regarding major important items, particularly about preventive measures during sexual intercourse. Additional studies on college students and adolescent populations have been conducted by McDermott et al. and Strunin and Hingson.^{8, 9} McDermott et al. found a high level of overall knowledge about AIDS among university students in midwestern United States in 1986. However 37.3% of the students in their study did not realize the high lethality of AIDS and 31.7% did not associate acquiring HIV infection with indiscriminate sexual behavior.⁸ Strunin and Hingson conducted a random telephone survey of adolescents in Massachusetts in 1986.⁹ Their results showed that many adolescents have low level of knowledge about AIDS, particularly its modes of transmission. Only 15% reported changing their sexual behavior because of fear of acquiring HIV infection. Furthermore, only 20% of those who claimed to have changed their behavior were using effective preventive measures.⁹

Our study in South Carolina showed that both high school and college students are informed about AIDS, with college students having more knowledge about AIDS than high

school students. Our findings indicate that information is lacking among high school students in some specific aspects of AIDS, such as the cause, modes of transmission, treatment and prevention of AIDS. A significant number of the students thought that a vaccine had been developed. Differences in mean knowledge scores among the groups are significant when comparing high school to college students. The fact that college students are older may help to explain this difference. Greater access to knowledge, specifically scientific journals, special lectures and seminars, and increased awareness of current issues may play a role in college students having higher knowledge scores. The military college students may have had the highest mean knowledge score due to increased interest in sexually transmitted diseases and AIDS, as evidenced by their voluntarily attending a seminar on these topics. High school students, meanwhile, had higher perceived risks of AIDS. Having little knowledge of a disease may lead to increased apprehension. According to Slovic et al., "discussion of a low-probability hazard may increase its memorability and imaginability and hence its perceived riskiness, regardless of what the evidence indicates."¹⁰

Contrary to the findings of Price et al.,⁷ who reported greater knowledge among male than female high school students, our findings suggest that knowledge, perceived risk, and beliefs do not vary significantly between the sexes. Our study confirms the observation by DiClemente et al. regarding the relationship between the level of perceived risk and proximity of residence to a high AIDS incidence area. A higher number of students (42%) in the study by DiClemente et al. believed that living in San Francisco increases their chances of getting AIDS.⁶ Since South Carolina is a low AIDS incidence state, only 4-11% of students in our study perceived that living in South Carolina increases their risk of acquiring HIV infection.

In general, the results of our study show a fairly high level of knowledge in South Carolina about AIDS, with college students having greater knowledge than high school students. Yet, because the study population was not evenly distributed among the races (i.e., the high school sample was predominantly black and the college samples were predominantly

white), it cannot be assumed that differences are solely attributable to the level of education. It should be noted that among the state university population, blacks did not differ significantly from whites when comparing mean knowledge, perceived risk, and seriousness scores. However, the socioeconomic status of black college students may be more similar to white college students than to the black high school students.

The low level of knowledge about AIDS among high school students and their higher perceived risk underscore the need for school-based AIDS education programs. Although a great majority of the students (90-94%) in our study agreed that AIDS education should be provided by the schools, only 24-37% of the students actually reported receiving instructions about AIDS in their schools. This finding is consistent with the results of the National Adolescent Student Health Survey, conducted in 1987, which found that 35% of the students in its survey reported receiving instruction on AIDS in schools.¹¹ The National Academy of Science endorses school-based AIDS education and recommends that education should be started at a young age with age-specific and age-appropriate factual and practical contents and messages.³ The National Research Council further recommends that clear and explicit information on AIDS and sex education be given to both male and female students.¹² Furthermore AIDS education should not only provide knowledge but also emphasize development of specific skills which will help students adopt and maintain risk prevention behaviors. In addition, evaluation should be an essential part of an effective AIDS education program.⁴ The Centers for Disease Control recently developed guidelines to help schools plan, implement and evaluate their AIDS education efforts. They recommended that the content of school-based AIDS education programs should be developed with active participation of school personnel and parents.¹³

Physicians play a very vital role in the current AIDS epidemic not only in managing the complex clinical problems of AIDS patients, but also in AIDS education and prevention efforts. Physicians should get involved in school-based AIDS education programs by offering their expertise in developing clear, cul-

turally sensitive and age-appropriate course content and by regularly presenting accurate and up-to-date medical information to students, school personnels and parents to supplement the school program.^{4, 14} The American Medical Association recommends that "physicians must assume a leadership role in this effort which will involve drug and sex education in schools."¹⁵

Further research is needed in several areas. Since racial differences could not really be addressed in this study, studies focusing on knowledge, attitudes, and beliefs about AIDS in different racial and ethnic groups need to be performed. Specifically, studies among black college students would be particularly useful since there is a higher proportion of AIDS cases reported among blacks in South Carolina.² Additionally, studies among students in rural areas and among younger children, perhaps at the middle or junior high school level, need to be conducted.

SUMMARY

Our study reveals that high school and college students in South Carolina have a fairly high level of knowledge about AIDS. High school students have lower level of knowledge about AIDS than college students. High school students also have higher perception of risk of acquiring HIV infection and do not consider the AIDS epidemic as a very serious health threat. School-based AIDS education is critically needed to increase students' knowledge about AIDS and to develop skills which will help them adopt and maintain risk prevention behaviors. Physicians play a very important role in developing effective school-based AIDS education and prevention programs. □

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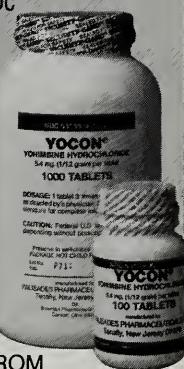
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Editorials

TICK DISTRIBUTION IN SOUTH CAROLINA

Lyme disease has received unprecedented publicity, primarily in the lay press. Much of the discussion centers around the tick vector of this disease. Physicians are receiving many inquiries from concerned individuals with respect to possible exposure or infection with the causative agent, *Borrelia burgdorferi*. The recent paper by Schuman and Caldwell² describing their findings from a survey for Lyme disease in South Carolina prompted this report. I have been derelict in not sharing this information sooner.

Because South Carolina was one of the five leading states with cases of Rocky Mountain spotted fever (RMSF), in 1973 the Bureau of Laboratories began to examine ticks for evidence of *Rickettsia rickettsii*. There were two primary conclusions from the study; ticks are found throughout the year and about four percent harbor *R. rickettsii*.

Although this investigation was directed towards RMSF, it is fortuitous that data on the distribution of tick species are available and useful to determine the extent of the putative vector of the emerging specter of Lyme disease. During the years 1977 to 1984, 20,498 ticks removed from human beings were examined.

From our studies it was determined that five species of ticks were common in South Carolina. They were *Dermacentor variabilis*, *Amblyomma americanum*, *Amblyomma maculatum*, *Rhipicephalus sanguineus*, and *Ixodes scapularis*. The frequency of recovery from human beings is *D. variabilis*, 92.4%; *A. americanum*, 5.1%; *R. sanguineus*, 1.6%; *A. maculatum*, .6% and *I. scapularis* .3%.

D. variabilis and *A. americanum* are essentially summer ticks in South Carolina. The former was found from March until November and the latter was active from March through September. *R. sanguineus* and *A. maculatum*

were found essentially throughout the year. *I. scapularis*, on the other hand, is a winter tick in South Carolina. It was found from December through April but appeared earlier in the Winter (October and November) in the coastal counties.

The vectors of Lyme disease unquestionably appear to be *I. dammini* in the northeast and north-midwestern United States and *I. pacificus* in the western United States. *I. scapularis* is widespread throughout the southern states. Although there have not been sufficient studies on the vector of Lyme disease in the southeast United States, evidence has been presented that *I. dammini* and *I. scapularis* are the same species.

Although few in number (66 ticks), *I. scapularis* was found in 25 of the 46 counties from border to border. Forty-four ticks were from the coastal counties, 11 from the sandhill counties, and 11 from the Piedmont counties.

An earlier report of ticks and RMSF from this laboratory was published in 1978.¹ That work covered the time period from 1974-76. During those years, 6,761 ticks were examined. The geographical and species distribution of the five species were similar to the findings reported here.

A detailed analysis of the tick distribution, by species, prevalence if rickettsial infection, temporal and geographic distribution is in preparation.

ARTHUR F. DiSALVO, M.D.
Chief
Bureau of Laboratories
South Carolina Department
of Health and
Environmental Control
Box 2202
Columbia, S. C. 29202

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LETTER TO THE EDITOR

The following poem was submitted by a cancer victim who now does volunteer work with cancer patients in her area's hospitals.

—CSB

CANCER WARD

A Pied Piper on Rounds, he pontificates
in his untouchable white smugness
of doctoring to his mesmerized students
and patients alike.

Diseased bodies silence their agonies,
praying to find a speck of hope
against all hope
within the manicured charade each day.
Impatiently, they wait in awe and
expectation—
as children would see the freakshow at the
fair....
But here they are the freaks
With tumors nesting in their flesh
and parasites feeding from within.

The Piper's pipe grows silent as he leaves.
The Magic is gone.
Until tomorrow.

Ruth Ilg
P. O. Box 2323
Anderson, S. C. 29622

REGIONALIZED PERINATAL CARE: THE NEXT STEP

The authors of the symposium, "Regionalized Perinatal Care in South Carolina" in the August, 1989 issue of *The Journal* provided a well-written, comprehensive review of the evolution of such care in our state. The next logical phase in the evolution of regionalized perinatal care should be the establishment of multiple, fully-staffed, and well-equipped Level II Centers within each region.

While a few of the currently labelled Level II Centers meet designated standards, most do not. Fully-operational Level II Centers would (a) provide appropriate care for many non-ventilator dependent sick infants—for example those with such problems as septicemia and jaundice; (b) accept recovering and convalescing infants from Level III Centers; and (c) offer local convenience for many families.

Such a system of improved Level II Centers would substantially reduce the growing volume of sick neonates inundating our Level III Centers. Obviously, the critical issues to be addressed are funding and staffing. The former issue must be addressed by the South Carolina Department of Health and Environmental Control.

Our state can be justifiably proud of the progress made in perinatal care over the past 15 years. However, we most certainly have a great deal more to do. A "fleshing out" of the Level II Centers would be a major step in this direction.

C. WARREN DERRICK, JR., M.D.
Chairman
Department of Pediatrics
University of South Carolina
School of Medicine
5 Richland Medical Park
Columbia, S. C. 29203

Guest editorials reflect the opinion of the author and do not necessarily reflect the opinion of the Editorial Board or the leadership of the South Carolina Medical Association.

—CSB

On the Cover:

THOMAS PRIOLEAU WHALEY, M.D., 1870-1918 PRESIDENT, SCMA, 1907

Thomas P. Whaley was born in Pendleton, S. C., July 12, 1870. He was educated in Charleston, graduating sixth in his class from the Medical College of the State of South Carolina in 1892 and thus earning an appointment as house physician in St. Francis Xavier's Infirmary. After his internship, Dr. Whaley spent some time studying in Vienna and Paris where he gained valuable experience in surgery, genito-urinary disease and dermatology.

After returning to Charleston, Dr. Whaley had a varied and successful practice. He taught, at different times, both dermatology and genito-urinary surgery at the Medical College, and lectured at the Training School for Nurses. He was a popular physician and was "quite dear to his patients." He is said to have been one of the first in the area to use spinal anesthesia and the x-ray machine, to decapsulate the kidney, to recognize beri-beri, and to devote so much attention to urology.

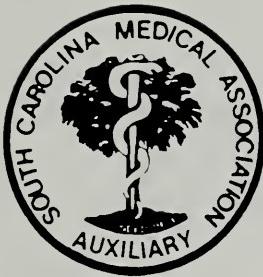
In 1907, the year that Dr. Whaley presided over the SCMA, the main topic of discussion seems to have been the action by insurance companies to reduce the fees paid to physicians for pre-insurance examinations from \$5.00 to \$3.00. His presidential address as he retired from the chair at the annual meeting in Bennettsville was devoted almost in its entirety to the question of reasonable recompense for doctors' services:

The profession of medicine is certainly unique in one sense at least. It would seem that its chief object is to destroy that which supplies its nourishment. . . . We have minimized the terrors of smallpox; have almost banished cholera from the face of the earth; have shown how the terrible bubonic plague can be controlled; have perfected a cure for the dreaded diphtheria; have shown that typhoid fever, tuberculosis, yellow fever and malarial fever are preventable diseases; and peritonitis is being rapidly nipped in the bud.

We have shown that syphilis is not only preventable but curable; that ophthalmia neonatorum need never exist; that tetanus is preventable; and finally that many heretofore fatal surgical diseases, including cancer, if taken in their incipiency are perfectly curable. At this rate what is to become of the doctor? . . . Shall we finally present the astounding spectacle of a profession starving to death by virtue of its own attainments?

Although Dr. Whaley's fear of "working himself out of a job" might have been a bit premature, his litany of the accomplishments of the medical profession is impressive.

BETTY NEWSOM
The Waring Historical Library



Auxiliary Page

LEGISLATIVE REPORT

This year the objectives of the Legislative Committee concern themselves mainly with the grass roots level. All county chairwomen have received a letter outlining the objectives of the committee. The objectives are: (1) more effective communication between the auxiliary and the federal and the state legislative arenas; (2) voter registration; (3) personal contact with state representatives; (4) *personal* knowledge of state medical issues (this includes knowing where the SMCA stands on each issue); (5) educating and informing the county auxiliary members on medical issues being considered by the state legislature; and (6) use of the phone bank alert.

The county chairwomen were informed that they will be receiving the *Legislative Update* whenever it is published. This material will inform them on current bills in the state legislature concerning health issues. They were also informed to call the SCMA office and to check with Barbara Whittaker, Staff Director, or Jan McKeller, Director of Health Policy Affairs, concerning the position of the SCMAA on medical matters. In June of this year, these chairwomen were also encouraged to speak out against the Expenditure Targets issue. They were also encouraged to increase participation in SOCPAC this year.

Aside from encouraging communication among county legislative chairwomen, plans are being made for auxiliary members to become more active in the political arena by inviting Senator Nell Smith from Pickens County to speak at the Fall Board meeting this month. Hopefully, this will inspire all of us to be more aware of the medical issues facing our state of South Carolina. Also at the Winter Workshop in January, the Legislative Committee would like to invite several members of the Medical Affairs Committee of the House and Senate to join us in Columbia for lunch. These plans have been discussed with Jan McKeller, but have not been firmed up yet.

As one can tell, our objectives are many. Hopefully, the legislative committee can reach our goals through effective communication and hard work. When we, as the SCMAA, become more politically aware and more politically active, we will begin to improve the medical atmosphere in the state of South Carolina.

ROSEMARY M. COOK
Legislative Chairman

JEANNE SABBACK
Co-Chairman

Classifieds

CAROLINAS/VIRGINIA COASTAL LOCATIONS: Immediate openings for emergency medicine and primary care physicians at Portsmouth Naval Hospital, Cherry Point Marine Corps Air Station, and Beaufort Marine Corps Air Station. Competitive compensation with professional liability insurance procured on your behalf. Call Jane Senger or Jane Schultz at 1-800-476-4157 or write Coastal Government Services, 2828 Croasdale Dr., Durham, NC 27705.

PHYSICIAN: The VA Medical Center has an opening in the Alcohol and Drug Treatment Unit beginning October, 1989. Applicants should be U.S. citizens with board certification or eligibility in Psychiatry, Family Practice, or Internal Medicine. The position involves a faculty appointment at the Medical University of South Carolina and participation in patient care, teaching, and an active on-going research program. Send CV and names of three references to: James D. Sexauer, M.D., VAMC, 109 Bee Street, Charleston, SC 29403, (803) 577-5011, ext. 7234. EOE.

VACANCY ANNOUNCEMENT: STAFF PHYSICIAN, WHITTEN CENTER, a progressive ICF Institution serving the mentally retarded in the Piedmont Region of SC has an immediate need to fill a STAFF PHYSICIAN position. Must be able to obtain SC medical license. Excellent SC benefit program to include annual, sick and family sick leave, health and dental plans, life and term insurance, deferred comp and retirement. Send complete résumé to Fred Robinson, M.D., Whitten Center, P.O. Box 239, Clinton, SC 29325 or call (803) 833-2733, Ext. 334.

1990 CME CRUISE/CONFERENCE ON MEDICOLEGAL ISSUES AND SELECTED MEDICAL TOPICS—Caribbean, Bermuda, Alaska/Canada, New England, Scandinavia, W. Mediterranean, Europe, Asia, Trans Panama Canal. Approved for 20-28 CME Category 1 Credits (AMA/PRA) and AAFP prescribed credits. Distinguished lecturers. Excellent group fares on finest ships. Pre-scheduled in compliance with IRS requirements. Information: International Conferences, 1290 Weston Road, Suite 316, Ft. Lauderdale, FL 33326. (800) 521-0076 or (305) 384-6656.

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INTRAVENOUS STREPTOKINASE THERAPY FOR ACUTE MYOCARDIAL INFARCTION IN A COMMUNITY HOSPITAL: EFFECT ON VENTRICULAR FUNCTION AND MORTALITY*

JOSEPH L. TRASK, M.D.

NEIL W. TRASK III, M.D.

WILLIAM J. CUSHING, M.D.

HARVEY E. BUTLER, JR., M.D.

BRUCE W. USHER, M.D.**

Since its approval for intracoronary use by the FDA, streptokinase, and thrombolytic therapy, in general, have become accepted standard therapy in the treatment of acute myocardial infarction. The reported efficacy for intravenous streptokinase varies from 31%¹ to 60%,² but in most studies is estimated at approximately 51%.³ Clinical trials at academic centers do not always reflect the true safety and efficacy of a treatment when applied in a community practice. To evaluate streptokinase's safety and efficacy in a community practice, we retrospectively reviewed the records of the initial 102 patients treated with intravenous streptokinase at a nearby community hospital. This study, we feel, accurately reflects the results of streptokinase therapy in a community medical center.

METHODS

From February 1984 until December 1987, 102 patients were given intravenous streptokinase at the Grand Strand Hospital, Myrtle Beach, South Carolina. All patients were evaluated by a cardiologist prior to initiation of therapy. The decision as to whether to treat the patient with streptokinase was initially made by the referring physician and then later in conjunction with the consulting cardiologist. Specific exclusion criteria were not recorded, but in general were:

1. Recent (six weeks) surgery.
2. Any history of previous cerebral vascular accident.
3. Uncontrolled hypertension.
4. Recent history of gastrointestinal bleeding or active ulcer.
5. Previous treatment with streptokinase.
6. Diabetic retinopathy.

The determination as to whether the patient was having an acute infarction was made by the referring physician and the consulting cardiologist. General criteria were:

* From Grand Strand Hospital, Myrtle Beach, S. C. (Drs. Trask, Trask, Cushing, and Butler) and the Cardiology Division, Medical University of South Carolina, Charleston, S. C. (Dr. Usher).

** Address reprint requests and correspondence to: Bruce W. Usher, M.D., Cardiology Division, Medical University of South Carolina, 171 Ashley Avenue, Charleston, S. C. 29425-2221.

1. Prolonged pain consistent with an ischemic origin.
2. EKG changes consistent with an acute infarction.

In general, EKG changes consisted of ST elevation in a pattern suggestive of an acute myocardial infarction rather than pericarditis or early repolarization. One patient had non-specific ST-T wave changes, a previous history of infarction and coronary artery bypass surgery, and prolonged pain consistent with ischemia. However, he was excluded from analysis due to normal cardiac isoenzymes and an inability to diagnose or localize a region of injury by electrocardiograms. A second patient had marked anterior ST depression rather than ST elevation and prolonged ischemia-type pain. This patient was included in the total analysis because of EKG localization of his ischemia and cardiac isoenzymes consistent with myocardial necrosis.

In all cases, streptokinase was given intravenously over 45 to 90 minutes. In most cases, the drug was infused over approximately one hour. Most patients (86.1%) received 1.5 million units of streptokinase; however, 13 (12.9%) received one million units and one (0.99%) received 750,000 units. All patients were premedicated with Solumedrol and Benadryl intravenously. In addition, patients were treated with intravenous Lidocaine and nitroglycerin. Following completion of the streptokinase infusion, all of the patients were placed on a continuous heparin infusion to maintain the PTT at approximately 1.5-2.0 times normal. Patients were given additional therapy such as beta-blockers, aspirin, and calcium antagonists, at the discretion of the primary physician and consulting cardiologist.

Of the 101 patients, 89 (88.1%) were referred for cardiac catheterization and their catheterization reports were reviewed. One patient underwent catheterization elsewhere, and his report could not be obtained. Eleven patients did not undergo cardiac catheterization. Seven of these patients were treated medically, three patients died in the early hospital course, and one patient was discharged against medical advice prior to completion of his evaluation.

RESULTS

The average age of the patients was 55.2

TABLE 1
Mean Left Ventricular Ejection Fraction Post Intravenous Streptokinase

	<i>Patent Vessel</i>	<i>Occluded Vessel</i>
All patients	56.6%	43.4% (p<0.001)
—Anterior infarction	55.8%	37.9% (p<0.001)
—Inferior infarction	57.5%	49.0% (p<0.001)

years, with a range of 29 to 77 years. As would be expected, there was a male predominance with 80 (79.2%) males and 21 (20.8%) females (Table 1). Infarct distribution was surprisingly even with 51 anterior infarctions and 50 inferior infarctions. Patients were evaluated and treated with streptokinase relatively quickly. Twenty-one (20.8%) patients began receiving streptokinase within 1.5 hours after onset of symptoms. Fifty-three (52.5%) patients had initiation of therapy within 1.5 to 3.0 hours after onset of symptoms, and 27 (26.7%) began therapy greater than 3.0 hours after onset of symptoms (Figure 1). With the exception of three patients whose therapy was started at 6.25, 7.0, and 9.0 hours after onset of symptoms, all other patients began therapy in less than six hours from onset of symptoms. Overall, 73.3% of our patients began therapy within 3.0 hours.

As previously noted, 89 (88.1%) patients underwent cardiac catheterization after receiving streptokinase, and their results were reviewed. The average delay from initiation of therapy to cardiac catheterization was 3.89 days, with a range of one to 31 days. Sixty-one (68.2%) of our patients underwent cardiac catheterization

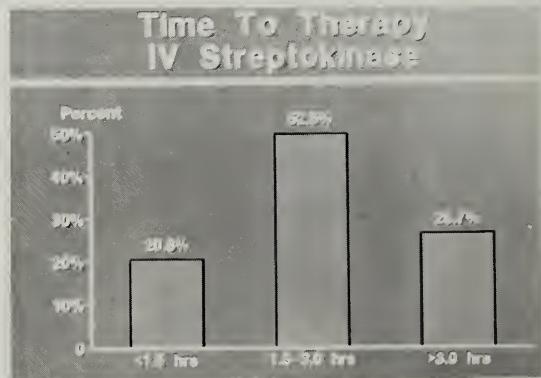


FIGURE 1. Time from onset of symptoms to institution of intravenous streptokinase.

within 72 hours and 18 (20%) patients within 24 hours. Almost 90% (80 patients) were studied within the first week after therapy.

Complications were reviewed in all patients up to the time of their discharge. Only three patients died during their hospitalization, for an overall mortality of 2.97%. All deaths were associated with anterior infarctions and dramatic, extensive EKG changes. Two patients died within 24 hours with refractory congestive heart failure and cardiogenic shock. The third patient died five days post-infarction secondary to myocardial rupture. No death was directly attributable to thrombolytic therapy. Seven patients (6.93%) had excessive bleeding recorded from any site, and four patients (3.96%) required blood transfusions. The most serious episode of bleeding was secondary to inadvertent puncture of a carotid artery during central line placement. Sixteen patients (15.8%) had recurrent chest pain after streptokinase therapy and one patient (0.99%) had a documented re-infarction.

At cardiac catheterization, the predicted infarct-related vessel was patent in 65 (73%) of the patients and occluded in 24 (27%) patients. Of those patients treated within the first 1.5 hours after onset of symptoms, 85% of the predicted infarct-related vessels were patent. When therapy was instituted between 1.5 and 3.0 hours after onset of symptoms, the patency rate was 72%, and patients treated after 3.0 hours had a 65% patency rate (Figure 2). In addition to coronary artery patency, left ventricular ejection fractions were assessed in 84 (94%) of the patients undergoing cardiac cathe-

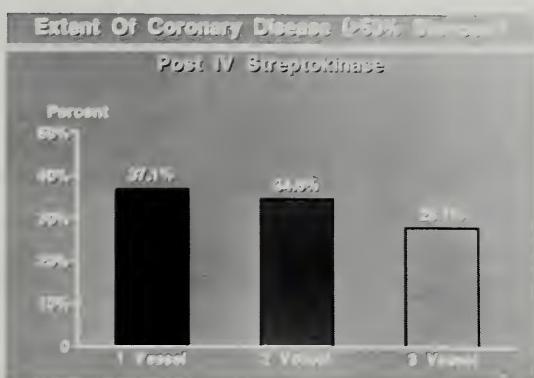


FIGURE 3. Extent of angiographic determined coronary artery disease.

terization. The majority of the ejection fractions were obtained by ventriculography at the time of catheterization, although some patients were assessed by 2-D echocardiography or radionuclide angiography. In the 64 patients with patent vessels, the mean ejection fraction was 56.6%. This was significantly ($p < .001$) greater than the mean ejection fraction of 43.4% in the 20 patients with occluded vessels. In patients with anterior infarctions, the mean ejection fraction was significantly higher, 55.8% vs. 37.9% ($p < 0.001$), in those patients with patent vessels as compared with patients with occluded vessels. As has been reported in other studies, the statistical difference in mean ejection fractions for inferior infarctions with patent vessels (57.5%) vs. those with occluded vessels (49%) was not highly significant ($p < 0.01$).

Coronary arteriograms revealed that 33 (37.1%) of the patients undergoing cardiac catheterization had single-vessel disease. Thirty-one (34.8%) patients had significant two-vessel disease, and 25 (28.1%) patients had three-vessel disease (Figure 3). Significant stenosis was defined as 50% luminal narrowing in one of the three main coronary arteries or their branches. Thirty-four patients (33.7%) were treated with medical therapy after receiving streptokinase while 33 patients (32.7%) underwent coronary angioplasty alone, and 28 (27.7%) underwent coronary artery bypass grafting. Three patients (2.97%) underwent both angioplasty and bypass surgery.

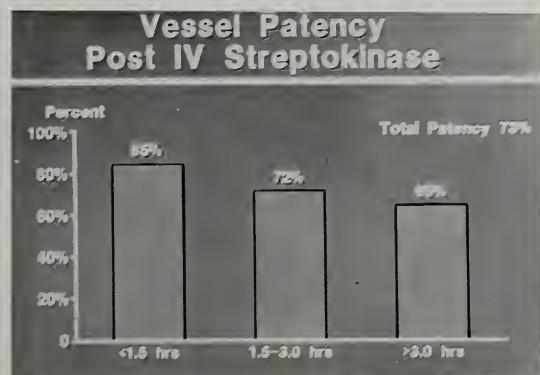


FIGURE 2. Angiographic patency rate of predicted infarct-related coronary artery.

DISCUSSION

This study documents the influence of intra-

venous streptokinase therapy on community hospital treatment of myocardial infarctions. In this study, patency rates were high in the entire treatment group and especially in those patients treated within 1.5 hours after onset of symptoms. Certainly, some of the patent arteries were not opened as a result of streptokinase, but represent spontaneous clot lysis or recanalization which has been demonstrated to occur in some patients as part of the natural history of myocardial infarctions.⁴ Spontaneous recanalization occurs with increasing frequency in the initial two weeks after infarction, but infrequently in the initial three to four hours after occlusion, when it would be beneficial.^{5,6} Therefore, the improvement in ventricular function seen in this study cannot be explained on the basis of spontaneous recanalization. Patients who did not have reperfusion with streptokinase therapy, but who later had spontaneous clot lysis, were included in the patent groups. These patients would be expected to have lower ejection fractions and, therefore, cause the study to underestimate the true improvement in ejection fraction. In addition, some patients had previous infarctions which depressed their ejection fractions, and their inclusion would result in further underestimation of benefit.

Most importantly demonstrated in this study was the reduction in mortality. This was not a controlled study and, therefore, no definite comparisons can be made. However, the reported mortality is 10% in patients hospitalized with acute myocardial infarction and treated with standard therapy.⁷ Certainly, our mortality of 2.97% is very low and represents a 70% reduction in expected mortality. In light of the relatively few complications, the risk-benefit ratio of giving streptokinase therapy in the setting of acute myocardial infarction is very low.

SUMMARY

Streptokinase can dramatically impact upon management of myocardial infarctions in community hospitals. When given by experienced personnel during the first six hours after onset of symptoms, streptokinase is associated with a high patency rate, improved left ventricular function, and reduced mortality. Careful screening of patients results in a low complication rate with infrequent serious bleeding. Streptokinase should be utilized in those hospitals without cardiac catheterization facilities, but in light of the relatively high incidence of recurrent pain (15.8%), transfer of stable patients to a facility with a catheterization laboratory should be carried out within 24 to 72 hours. As approximately 60% of patients will require PTCA, CABG, or both, diagnostic cardiac catheterization should be considered in all patients unless there are other mitigating factors. □

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SCHIZOPHRENIA: PROMISING NEW DIRECTIONS IN SOUTH CAROLINA*

ALBERTO B. SANTOS, JR., M.D.**
PAUL A. DECI, M.D.

The care of patients with schizophrenia continues to be one of medicine's greatest challenges. The schizophrenic symptoms most familiar to us as physicians are the bizarre belief systems (delusions) and the false perceptions (hallucinations), typically of a commanding or derogatory nature. These dramatic symptoms, known as the "positive" symptoms of schizophrenia,¹ are usually ameliorated by antipsychotic medications. Other aspects of the illness, the so-called "deficit" or "negative" symptoms, are not as responsive to medications. Negative symptoms include social withdrawal, decreased motivation and goal-directed behavior, and emotional blunting such that one does not seem "in tune" with social and cultural trends. It is these negative symptoms, not generally responsive to medications, which are most destructive to social and occupational functioning and pose the greatest challenge for our profession.

Schizophrenia has traditionally been considered a chronic, progressive illness with a course marked by exacerbations and remissions. We see many patients who experience acute episodes of altered mentation with hallucinations and/or delusions who respond to medications, are able to recover fully, and never have a subsequent episode. Such brief psychotic syndromes are not representative of schizophrenia. Instead, an acute psychotic episode in schizophrenia is followed by significant deterioration in social and occupational functioning. For some, particularly those who respond poorly to medication, the course can be devastating with deterioration to a level where custodial care is necessary. For most, however,

there is a chronic-intermittent course where symptom recurrence can be anticipated and incorporated into their treatment plan. We now believe that for many patients the progressive nature of the illness can be altered through a combination of pharmacologic and environmental interventions.

SERVICES TO PATIENTS WITH SCHIZOPHRENIA

Before the introduction of antipsychotic medications, South Carolina followed national trends providing life-long institutional care for persons with schizophrenia and other severely disabling psychiatric disorders. Such care was centralized in Columbia at the South Carolina State Hospital on Bull Street.

It has been suggested that institutional care promotes morbidity.² The nature of custodial care does not allow for nor encourage decision making. Such choiceless existence may further atrophy the capacity of the mentally ill to negotiate the everyday challenges of life and to conform to ordinary cultural demands.

The utilization of antipsychotic medications which allowed patients to be discharged heralded a national movement away from institutionalization and towards community-based services. Yet, many patients are rehospitalized frequently for the following reasons:³⁻⁵

- only 25% of discharged patients actually keep their outpatient appointments;
- medication compliance rates for the first month are 50% at best;
- of medication compliant patients, only one in five is prescribed adequate doses; and
- despite optimal medication, there is a 50% relapse rate in the first 12 months.

Federally funded mental health centers which were set up across the state and nation, in part to help with the rehabilitation of de-institutionalized patients, did not uniformly

* From the Department of Psychiatry and Behavioral Sciences, Medical University of South Carolina, Charleston, S. C.

** Address correspondence to Dr. Santos at the Department of Psychiatry and Behavioral Sciences, Medical University of South Carolina, 171 Ashley Avenue, Charleston, S. C. 29425-2221.

provide sufficient community support services nor family and public education nor outreach services to insure medication compliance and facilitate community integration. Hence, mental health centers have been criticized for running outpatient clinics for more compliant patients, and thus, in effect, discriminating against individuals with chronic mental illnesses such as schizophrenia. Such criticisms are perhaps unwarranted since the federal government failed to make this goal clear and worse, the reports of federal evaluative site visits were ignored.⁴

The failure of deinstitutionalization can be summarized as follows: Medication, which held the greatest promise for deinstitutionalization, was only effective in half the patients since it did not ameliorate negative symptoms and compliance rates were less than expected. No other service system options were sufficiently explored or researched in order to provide guidance to clinicians in the community for the care of deinstitutionalized patients who were expected to conform to the ground rules of office-based practice. Philosophically, we overemphasized mental health instead of mental illness and set up an outpatient system which targeted those who sought help themselves, something not characteristic of an individual with schizophrenia.

NEW APPROACHES— NEW SOLUTIONS

There exists a growing body of evidence which suggests the presence of specific neuropathologic abnormalities in schizophrenia.⁶⁻⁹ Current thinking suggests that a fixed pathophysiological insult early in a patient's development interacts with normal brain development producing overt pathology later in life.⁹ These findings have led professionals to utilize a rehabilitation model for the treatment of patients with schizophrenia. That is, these patients can benefit most from a combination of symptomatic relief through the use of medications and environmental manipulations to help the patients adapt to their handicaps.

A number of innovative approaches have received considerable attention in the recent literature. Significantly lowered rates of hospitalization have been reported for those treated with a combination of medications and re-

habilitative interventions which teach symptom management and other skills to patients. Education is provided for family and friends about the illness, medications, and symptom management which enhances their ability to help compensate for the patient's cognitive deficits.^{5, 10} Interventions are aimed at reducing vulnerability and adding to the clinical efficacy of medications. These approaches involve the family as allies with the physician in contrast to earlier traditions in which the family was subtly considered responsible for the patient's condition and often treated adversely.

As service delivery models are developed to address this very serious public health problem, one particular approach has received considerable attention in the scientific literature.^{11, 12} This approach was developed in Madison, Wisconsin in the early 1970s. A group of state hospital professionals, recognizing that patients were not generally capable of navigating the maze of mental health outpatient resources, set up an aftercare system that allowed the clinician to follow the patients wherever and whenever it was deemed necessary. Both the discontinuity of care from inpatient to outpatient setting and the missed appointment obstacles were thus eliminated.

The approach, now called Programs for Assertive Community Treatment (PACT) or the Training in Community Living (TCL) Model, is used statewide in Wisconsin and in some 36 other cities in 15 states across North America and in Australia.¹³ This service delivery model insures that all patients are monitored for the appropriate doses of medications. All friends, family, and other interested individuals in a patient's support network are informed of the patient's handicaps and unique needs.

PROGRAM DESCRIPTION

The principal form of treatment is the use of a 24-hour, 7 day/week, interdisciplinary service team which meets daily to refine its treatment plans. The total range of community-support interventions is made available through this team to a maximum case load of 120 patients per program. Overall goals are to maximize medication compliance, residential stability, and productive activity. Services are delivered through assertive outreach (field work) in the community. The multidisciplin-

ary team is screened both for competency in their area of expertise (psychiatry, nursing, social work, vocational and social rehabilitation) and for dedication to the mission of the program. Frequency and nature of contact are determined by the individual needs of the patient. This includes frequent home visits to assess compliance with medications and the patient's living conditions. Each patient lives in as normalized an environment as possible. Although the living situation must promote stability, alternatives include living on their own, with a roommate, in a group setting, or with family. If necessary, the team will serve as an intermediary between a patient and a landlord. Meaningful work is obtained for individuals desiring and capable of employment. The staff compensates for each patient's emotional and cognitive deficits while serving as "work coaches" for those needing assistance. The team provides continuity of care across all areas of need. The care is highly individualized and continues for as long as the patient resides in the team's catchment area.

Differences between traditional outpatient treatments and Programs for Assertive Community Treatment are listed in Table 1. While eligibility criteria will vary slightly among sites, the teams serve adults (ages 18-65) with schizophrenia or other chronic psychotic disorders with a history of multiple or long-term psychiatric hospitalizations and who require assertive outreach to follow through with pre-

scribed treatments and to learn to live in the community.

CONTROLLED RESEARCH ON PACT

There is strong empirical support for the effectiveness of the PACT model in markedly reducing patient time in psychiatric hospitals. Evidence comes from controlled studies in Madison, WI and from controlled evaluations of replications/adaptations in other settings.¹⁴⁻²⁴

The initial Madison project randomly assigned patients who were about to be hospitalized (excluded patients with severe organic brain syndrome, mental retardation or primary alcoholism) to either the PACT program or to a control group which received short term in-hospital treatment followed by traditional aftercare in the county system. Patients in the PACT group spent significantly less time in psychiatric hospitals than the control patients. The PACT group patients spent significantly more time than the controls in independent living situations and demonstrated significantly more favorable community adjustment in the areas of employment, social relationships, symptomatology, and satisfaction with their lives. A comprehensive economic benefit-cost study comparing PACT with the traditional county system revealed a small overall economic advantage in favor of the PACT model.¹⁴ A study of the relative "social costs" of PACT versus the traditional model revealed

TABLE 1

Differences Between Traditional Outpatient Care and Programs for Assertive Community Treatment

	<i>Traditional Outpatient Care</i>	<i>Programs for Assertive Community Treatment</i>
Treatment Site	In the clinic	In the community
Treatment	Focused (psychotherapy, medication)	Total care
Provider	Individual clinician	Team
Staffing	1:50 clinical staff to patient ratio	1:12 clinical staff to patient ratio
Staff Availability	Working office hours	Team available 24 hours/day, 7 days/week
Frequency of Contact	Once every 2 weeks in most cases	Daily in most cases
Family Contact	Occasional	Weekly in most cases
Patient Medication	Responsibility of patient and family	Responsibility of staff, can be administered daily by staff if needed
Housing Arrangements	Responsibility of patient and family usually	Responsibility of staff
Case Management Function	Broker of service	Service provider
Expectations	Gradual approach from total dependence to independent living	Maximize independence from beginning, drop back if necessary

that the significant gains made by the PACT patients were not at the expense of additional burden to family or community members.¹⁵ The project lasted two years after which the PACT patients were discharged to traditional MHC care. Most of the benefits gained were lost upon discontinuation of the intervention.¹²

The Madison-based research group are currently implementing a 12-year prospective controlled study involving only young adult patients with clearly defined schizophrenia or schizophrenic related disorders.¹⁶ Patients in this project are treated in an ongoing rather than time-limited fashion such that by the end of the project patients will have been treated and assessed in an ongoing manner for between five and 12 years. The control group consists of state-of-the-art services including mobile crisis teams, psychosocial clubhouses, special living arrangements and assertive outreach to patients who drop out of treatment. Findings from the first two years' data analysis indicate that the PACT model is again remarkably effective at reducing time spent in institutions.¹⁷ PACT was effective in both reducing hospitalizations and returning patients to the community rapidly after an acute episode. The low time spent by PACT patients in institutional settings was not offset by time spent in jails/penal settings or in homelessness or homeless shelters. With reference to housing, the greatest proportion of PACT patients (73.6%) were living in low supervision settings, primarily independent apartments, while the largest proportion of control patients (53.66%) were living in "high supervision" settings.¹⁷

Several controlled studies of replication/adaptations of PACT have been published where patients were randomized either to PACT or the existing best standard practice. One such study occurred in Kent County, MI and is known as the "Harbinger" program.¹⁸ Patients who would otherwise have been hospitalized were randomly assigned either to the Harbinger (PACT) program or to the existing treatment system. A 30-month followup revealed marked reductions in total number of patient hospital beds-days for patients in the PACT group. While there were no differences between controls and experimentals on symptomatology, there were advantages in psycho-

social adjustment for the experimental (PACT) group. The Harbinger (PACT) patients were more apt to be in daily work settings and making money than the controls, and psychological tests indicated better mental and social adjustment. At 18 months, costs for controls and experimental patients were about the same, but at 30 months, costs per year were reported to be significantly lower for the Harbinger (PACT) patients.^{17, 18}

Hoult and colleagues in Sydney, Australia evaluated a PACT team's effectiveness as an alternative to traditional inpatient care and community aftercare. Results at the end of one year revealed that fewer of the PACT patients had been hospitalized or rehospitalized and that PACT patients had spent markedly fewer average days in the hospital than controls (a mean of 8.4 versus 53.5 days).^{17, 19, 20} The PACT program was considered to be significantly more satisfactory and helpful by patients and by their relatives, and cost less than the standard care and aftercare.^{17, 21}

COMMENT

The modern treatment of individuals with severe psychiatric disorders such as schizophrenia should include both an understanding of each patient's pharmacokinetic and dose-response profile for each effective medication, and a thorough investigation of the patient's impairment including assessments of premorbid and current assets and deficits, a delineation of potential stressors leading to relapse, and effective mechanisms of social, occupational, and residential support. Interventions must address specific impairments in functioning and provide structured training to enhance the ability to cope effectively and maximize compliance with prescribed medications.

Further, when a schizophrenic patient is left alone they are likely to become socially isolated. As such, their social role functioning worsens. Helping the disabled, physically or mentally, to engage in productive and meaningful activity while treating them with respect as individuals, enhances and improves their ability to function.

Determinants of the course of a chronic mental illness such as schizophrenia include symptom severity, response to medications,

and the level of functional disability. The course is further determined by the response of our health care system in providing effective treatments and rehabilitation. Our usual office-based systems of care which depend on compliance with treatments are inappropriate, ineffective, and inefficient for the schizophrenic individual whose cognitive deficits interfere with judgment. Cognitively disabled individuals should not be expected to be medication compliant, or to sustain employment without adequate on-the-job support, or to negotiate effectively for decent housing.

Treatment systems must be redesigned so that missing appointments does not result in poor medication compliance or worse, the "closing" of an active file, meaning that no further action is taken to engage the patient in treatment. Valid and reliable guidelines have been established for effective approaches to the treatment of schizophrenia, including both the use of medications and a protocol which outlines basic parameters for effective interactions with patients and their relatives and friends. A system of care must also be implemented which assures compliance with medications and monitors daily activity. For individuals with schizophrenia, the healthcare team must advocate for the patient in all aspects of life.

The above principles of rehabilitation are critical to the care of individuals with schizophrenia in Programs for Assertive Community Treatment (PACT). This innovative treatment approach is now available to the chronically mentally ill in our state. The South Carolina Department of Mental Health has chosen this service delivery model as part of their community services. Given the research findings herein reviewed, we can anticipate that these programs will achieve the following goals: (1) to retain patients in treatment and minimize psychiatric hospitalization; (2) to develop opportunities for meaningful activities and paid employment; (3) to provide social support and a social network; and (4) to procure living arrangements that are comfortable and well maintained. This is the most optimistic, research-based outcome ever offered to South Carolinians with chronic mental illnesses. These full-time, full-service teams are internationally recognized as "state of the art" ap-

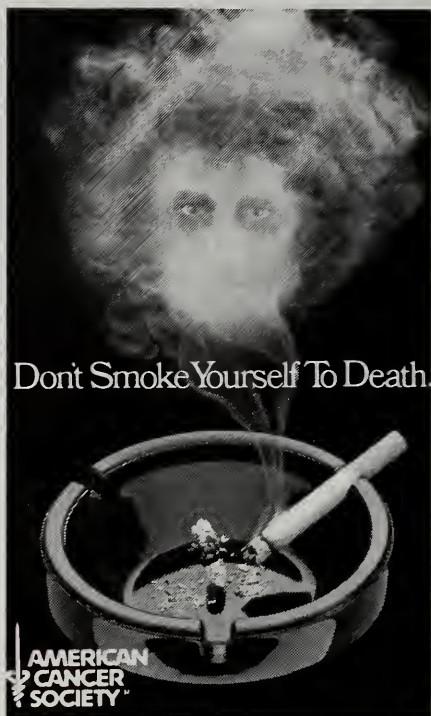
proaches to severe and chronic mental disorders. South Carolina is thus a leader with regards to utilization of advancements in caring for a previously neglected and often discriminated-against group of patients. □

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SCMIA NEWSLETTER

NOVEMBER 1989

MEDICARE UPDATE

Physician Reimbursement Reduced Effective October 17, 1989

Effective October 17, Medicare payments to physicians were reduced by 2.092 percent as a result of the Graham-Rudman-Hollings provisions of the budget reconciliation bill.

Oxygen Certification Forms

Physicians are reminded that they must complete Oxygen Certification Forms (HCFA 484); do not allow the supplier to complete this form. The Office of the Inspector General plans to monitor this service carefully.

ICD-9-CM Changes

Certain changes in ICD-9-CM codes were effective October 1, 1989. These changes were provided to you in a September Medicare Advisory by Blue Cross and Blue Shield of SC.

MEDICAID UPDATE

EPSDT Program

The Early and Periodic Screening, Diagnosis and Treatment (EPSDT) Program provides comprehensive and preventive health services to Medicaid eligible children from birth to age 21 through periodic medical screenings.

Physicians participating in the program must be licensed and/or certified by the appropriate standard setting agency to provide services covered by SC Medicaid. Physicians should contact The Computer Company at 1-787-4961 for Medicaid enrollment. Upon notification of Medicaid enrollment, the physician should contact the Division of Preventive Care at 1-253-6121 for EPSDT enrollment.

A screening will be reimbursed at \$45.00 for the first five screenings up to age one. All subsequent screenings up to age 21 will be reimbursed at \$38.00. This fee is all inclusive, although screening services vary according to age and periodicity schedule.

Obstetric and Gynecology Reimbursement Rates Increased

As a reminder, effective July 1, 1989, the following rates applied for the procedures listed:

<u>Code</u>	<u>Description</u>	<u>Rate</u>
59410	Vaginal Delivery	\$700.00
59500	C-Section	\$800.00
59520	Antepartum	\$ 20.00
59530	Post Partum	\$ 20.00
58600	Tubal Ligation	\$442.00
58605	Tubal Ligation - Post Partum	\$387.00
58611	Tubal Ligation - C-Section	\$221.00

PRO UPDATE

CMR Conference Calls Available for Physicians

Carolina Medical Review (CMR) wishes to remind physicians that they are entitled to a telephone conference with a PRO physician or non-physician representative, as appropriate, concerning a case. However, the physician must request a conference call in the written response to the initial inquiry. The purpose of the conference is to allow additional or clarifying information to be provided in the case file, which will then be reviewed for a final decision.

Please make note of the following:

1. No decision will be rendered in the telephone conference.
2. Telephone conferences are only allowed after initial inquiries from CMR ("20 or 30 day" letters), not for reconsiderations after adverse decisions.
3. Requests must be in writing.

In most cases, the information provided by the physician in the written response to the initial inquiry is enough to approve the case, without the need of a telephone call. However, if an adverse determination results and a telephone call has not yet taken place, then physicians are urged to contact the CMR Medical Advisor.

AIDS UPDATE

HIV/AIDS Resources and Information Network Guide Available

A statewide HIV/AIDS resources and information network guide entitled "Sharing" has been published by the HIV/AIDS Division of the Bureau of Preventive Health Services, SC DHEC. "Sharing" was developed to provide health care professionals with a single compilation of resources to assist their AIDS and HIV patients in obtaining needed services. It includes information on education and prevention services available in SC, such as physicians treating HIV/AIDS patients, mental health centers, testing and counseling, legal agencies and spiritual support. Services are listed by county for easy usage.

Copies are available at no charge by contacting the Editor, Patrick Barresi, MPH, HIV/AIDS Division, SC DHEC, 2600 Bull Street, Columbia, SC 29201, 737-4110.

FREE VACCINES FOR INDIGENT PATIENTS

Physicians who agree to immunize indigent and EPSDT patients at no charge for the vaccine are eligible to receive free vaccines from DHEC. No free vaccines can be provided without a "Letter of Application" on file with DHEC's Division of Immunization and Prevention. This letter sets forth the following additional conditions to which the physician must agree:

1. Immunize patients at no charge or for a reasonable administrative fee of no more than \$3.00.
2. Assume responsibility for informing each patient on benefits vs. risks of immunization and use "Important Information Statements" furnished by DHEC in clinic type settings where individualized medical judgments are not made.
3. Maintain and submit a quarterly vaccine report to the Division of Immunization and Prevention by the 5th day of each quarter. This report consists of the number of doses of vaccines administered to indigent patients by age and vaccine type. This allows DHEC to be reimbursed for the vaccine.
4. Maintain and submit a quarterly vaccine report to HHSFC. This report consists of the number of doses of vaccine administered to EPSDT patients by age and vaccine type. The report should also contain any other identifying information required by HHSFC.

Physicians must use their own criteria for determining indigence. The current vaccine program is subject to availability of funds and vaccine, and the degree of cooperation by private physicians with regard to the necessary requirements.

To obtain a "Letter of Application" or for additional information, contact the Division of Immunization and Prevention in Columbia at 737-4160.

HEALTH CARE QUALITY ASSURANCE ACT OF 1986

Physicians should take note that the Health Care Quality Assurance Act of 1986 (42 U.S.C. 11112 et. seq.) became applicable in South Carolina on October 14.

While the regulations and computer data base for the reporting process will not be on line until early 1990, physicians, especially those serving on hospital medical staffs, should note that the due process requirements for professional peer review proceedings are applicable immediately, from October 14 on.

Questions about the Act should be directed to Steve Williams at the SCMA.

PHYSICIAN BILLING UNDER CROSS-COVERAGE ARRANGEMENTS

In last month's newsletter, it was reported that physicians in another state encountered problems with their Medicaid agency when they billed for their patients although another physician had covered for them. A clarification was provided by Blue Cross and Blue Shield of SC with regard to Medicare. The following statement has since been issued by HHSFC with regard to Medicaid:

"A physician can bill for those services rendered by another physician as long as (1) the covering physician is not seeing these patients as a routine part of his/her practice; (2) the primary physician understands that he/she is responsible for services rendered by the covering physician that are billed by him/her to Medicaid; and (3) both physicians do not bill for services rendered."

NOMINATIONS BEING ACCEPTED FOR MATERNAL AND CHILD HEALTH AWARDS

The Bureau of Maternal and Child Health, DHEC, in cooperation with HHSFC and the Governor's office, wishes to recognize and commend individual physicians who have made outstanding contributions in expanding Medicaid and improving access to health care for mothers and children. Awards will be made at the Annual Maternal and Child Health Awards Ceremony on December 13, 1989. Nominations should be received by November 24, 1989. For a nomination form, contact Christine Mayers or Joanne Fraser in Columbia at 737-4190.

HOTLINE PHONE NUMBERS: PRENATAL PATIENTS

If your prenatal patients are having trouble obtaining Medicaid or other social services, you or your patients can call the Pregnancy Hotline number at 1-800-868-0404 (or in Columbia, 737-3998) to obtain assistance.

HURRICANE DAMAGE LOAN FUND ESTABLISHED

The Board of Trustees of the SCMA has established a \$500,000 Hurricane Damage Loan Fund to aid members in maintaining their practice. The AMA has committed an additional \$500,000 for loans to member physicians in SC. Loans of up to \$10,000 per eligible member or a maximum of \$25,000 for groups of three or more members, will be made available for repairing or replacing damaged equipment and supplies, for making necessary repairs to, or relocation of, professional offices and for maintaining cash flow to meet necessary expenses.

Applications must be submitted between now and January 31, 1990. To obtain a loan application, call or write Mr. Wayne Cox at the SCMA Headquarters.

SPECIAL ELECTION RESULTS

The South Carolina Political Action Committee (SOCPAC) supported successful candidates Marion "Son" Kinon (D) for House District #55 and Holly Cork (R) for House District #123. From Dillon, Kinon is a former Circuit Judge and former Representative (1957-1960, 1978-1979). He filled the seat vacated by James Lockemy who became Circuit Judge. Cork, from Hilton Head, formerly worked with Congressman Arthur Ravenel. She filled the seat previously held by her late father, Bill Cork.

SOCPAC also supported Leone Castles (R) from Columbia, who lost a close race to Jim Harrison (R) for House District #76 in a primary run-off election. Harrison faces Democrat Lyles Glenn in the November General Election. Castles is the wife of C. Guy Castles, Jr., MD.

AMA VIEWED AS LEGISLATIVELY EFFECTIVE

In the view of senior congressional staff members, the American Medical Association is one of the five national organizations most effective in achieving its legislative goals. That assessment came from a survey conducted last spring by two opinion-gathering research firms. The firms, which periodically conduct the survey, hold open-ended, confidential interviews with top staff from about one-fourth of all Senate and House offices.

GRANTS-IN-AID FROM AMERICAN HEART ASSOCIATION, SC AFFILIATE

Applications for Grants-in-Aid are now available from the American Heart Association, SC Affiliate, with a deadline of December 4, 1989 for submission to the Association's Research Committee. General requirements are that applicants must have advanced degrees and contemplate significant basic or cardiovascular research in a non-profit institution with adequate facilities for their work. Awards are activated beginning July 1, 1990. Further information and application forms may be obtained from the AHA, SC Affiliate, PO Box 6604, Columbia, SC 29260.

This research program is separate from that of the American Heart Association, National Center, which also makes research awards to scientists in SC. Deadlines are June 1, 1990 for Fellowships and July 1, 1990 for Grants-in-Aid. Those interested in inquiring about the national program may write the Director of Research, American Heart Association, 7320 Greenville Ave., Dallas, TX 75231.

AMA WORKSHOP ON HIV COUNSELING

The AMA and the Florida Academy of Family Physicians are cosponsoring a workshop on HIV blood test counseling on Saturday, December 2, at the Marriott Orlando World Center in Orlando. The purpose of the workshop is to provide physicians with sound

guidance on how to incorporate effective pre- and post-test HIV counseling in their patient care. Physicians will be informed what works and doesn't work in HIV counseling.

Although not every physician will treat AIDS patients, nearly all will come into contact with patients who are, or may become, HIV positive. Since the incidence of HIV disease is continuing to increase, there is a corresponding need for early identification and HIV testing.

Workshop participants can obtain seven hours of Category I CME credit toward's AMA's Physician Recognition Award.

For additional information, call AMA's Division of Health Science at 312-645-5563. To make room reservations at the Marriott Orlando World Center, call 407-239-4200 and identify yourself as being a workshop participant.

1989 SCMA MEMBERSHIP YEAR

Two county medical societies, Bamberg and Hampton, ended the 1989 SCMA membership year with 100 percent participation. Chester followed closely behind with 95 percent. Spartanburg County Medical Society, with a total membership of 336, had 262 members in the SCMA, or 78 percent. Final totals for 1989 indicated 2,904 active members, 109 new members, 288 honorary and disabled members, 162 residents and 319 students.

CAPSULES

Thomas C. Rowland, Jr., MD, SCMA immediate past president, was elected Chairman of the Council of the Southern Medical Association at its 83rd Annual Scientific Assembly in Washington, DC.

The Georgetown County Medical Society has initiated a nursing scholarship to be awarded annually to a member of the nursing profession at Georgetown Memorial Hospital who might desire to further his or her education in nursing.

The SC Society of Internal Medicine was awarded ASIM's Component Society Membership Improvement Award at ASIM's Annual Meeting in October in Washington, DC, for outstanding improvements in membership growth during the 1989 dues year. ASIM recognized SCSIM for extensive personal recruitment and retention activities, which culminated in a 20 percent increase in membership this year.

SCMA NEWSLETTER
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Contributions welcomed.
Melanie Kohn, Editor
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Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon® is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.^{1,2} Also dizziness, headache, skin flushing reported when used orally.^{1,3}

Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.^{1,3,4} 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.³

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

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DYNAMIC AUSCULTATION*

RICHARD S. POLLITZER, M.D.**
STEPHEN L. WATKINS, M.D.
TIMOTHY S. LLEWELYN, M.D.

Cardiac murmurs, gallops, opening snaps, and other tones have acquired new significance in the last few months because of balloon angioplasty for stenoses of the aortic and mitral valves.^{1, 2}

Every physician learned in medical school that these cardiac noises can often be evaluated at the bedside by simple maneuvers such as straining, handgrip, squatting, etc. These techniques, known as dynamic auscultation, have been made more precise, because of recent research, as described in detail by the authors of several excellent textbooks³⁻⁶ and articles.⁷

In lecturing to our House Staff and to practicing physicians, however, we found that they had difficulty in remembering the effects of several different maneuvers on a number of different events in the cardiac cycle.

Accordingly, we constructed a tabular chart, which is shown in the accompanying figure. The top line of the chart lists various heart sounds, in the sequence in which they ordinarily occur. At the left of the chart, listed vertically, are some of the maneuvers, starting with those which are simple and entirely safe; at the lower portion of the chart are described those maneuvers which are marked "avoid if danger of ischemia or arrhythmia."

In the chart, an upward pointing arrow indicates that a given heart sound is increased by a certain maneuver. For example, the murmur of aortic stenosis is louder about *five seconds* after the patient does a Valsalva strain. The murmur of mitral stenosis is increased by isometric handgrip.

By combining several maneuvers, the physician can greatly increase the intensity of many heart sounds, thus providing more information about cardiac diagnosis.

We have found it helpful to make copies of this chart and keep them in our examining rooms. □

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* From the Doctor's Medical Center, Spartanburg, S. C.

** Address correspondence to Dr. Pollitzer at the Doctor's Medical Center, 391 Serpentine Drive, Suite 550, Spartanburg, S. C. 29303.

DYNAMIC AUSCULTATION

	SYSTOLE				DIASTOLE					
	Mitral Regurgitation	Valvar Aortic Stenosis	Hyper-trophic Subaortic Stenosis	Mitral Prolapse Click	Pulmonic Second Sound Murmur	Aortic Regurgitation	Ventricular Gallop	Mitral Stenosis	Austin Flint Murmur	Atrial Gallop
Increase = ↑						↓	↑			
Decrease = ↓						↑	↓			
Earlier = ←						→	↓			
Later = →						↑	↑			
Expiration	↑	↑				↓	↑			
Inhalation	↓	↓				↑	↓			
Beat after Premature	↑	↑	↑	↑		↑	↑			
Passive leg raise	↑	↑	↓	↑		↑	↑	↑	↑	↑

Avoid the following if Danger Ischemia or Arrhythmia

Strain Valsalva	↓	↑	↑	↓	→	↑				
Release after Valsalva	↑	↓	↑	↑	↑	↑				
Sudden Squatting	↑	↑	↑	↑	↑	↑	↑			
Sudden Standing after Squatting	↑	↑	↑	↑	↑	↑	↑	↑		
Isometric Handgrip	↑	↑	↓	↑	↑	↑	↑	↑	↑	↑

MODIFIED FROM CRAWFORD, MICHAEL H., & KOURKE, ROBERT A., SYSTEMATIC APPROACH TO BEDSIDE DIFFERENTIATION OF CARDIAC MURMURS, IN CURRENT PROBLEMS

IN CARDIOLOGY (W. PROCTOR HARVEY, ED.) 1977, YEARBOOK PUBLISHERS, CHICAGO
R.S. POLLITZER, M.D. SPARTANBURG, S.C.

From Route 16...



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ACCESS TO ONLINE INFORMATION: THE HARDWARE CONNECTION

NANCY SMITH, M.L.S.*

Access to medical information has changed dramatically in the last five years. Information which was once only available by subscribing to journals, purchasing medical texts and directories, or visiting the hospital or medical school library is now packaged for delivery to your home or office desktop through a telephone line. The major database vendors have customized their systems to provide ease-of-use by busy health care professionals.¹ A profusion of medical information is readily available in a "user-friendly" format, but how do you get to it? How do you go from desktop to database? What equipment is required?

A microcomputer, a modem, a telephone line, and a printer are the four basic "hardware" components needed for "online" access to medical information.

While a low-cost (\$400-\$600) terminal could be used instead of the microcomputer (\$800-\$3000), the flexibility and data storage capability of the micro would be lost. Assuming, then, that a microcomputer is used, which one is best? It doesn't matter. Apples, IBM-XTs, -ATs, PS/2s, IBM-clones of all descriptions, COMPAQs, Macintoshes, laptops and portables all serve equally well as online search machines. The "ideal" microcomputer would have at least 640K of random access memory (RAM), one floppy diskette drive, one hard disk drive with at least 20 megabytes of storage, one parallel port, one serial port, and a color monitor. The suggested capabilities are *not* requirements; online searching can be conducted by a machine with no memory, no storage capability, and no color. This "ideal" is presented as a workstation that would provide ease of use in online searching, ports for attaching a printer and a modem, and flexibility for other microcomputer applications such as word processing, small office management,

and continuing medical education.

An issue of greater concern is which modem is best? The modem translates, or *modulates*, digital signals sent by the microcomputer into analog signals that can be carried by telephone lines. When incoming telephone/analog signals are received by the modem, they are translated, or *demodulated*, back into digital signals that can be accepted by the microcomputer. Because of close association with the telecommunications industry, modems are the most standardized component of the online searcher's workstation. While the brand name is not important, a modem's ability to support several telecommunication standards is essential. It should support the "Hayes" or "AT" command set and certain Bell standards (212A for 1200 bits-per-second transmission; CCITV V.22bis for 2400 bits-per-second transmission). While extremely fast data transfer speeds of 9600 baud and higher are currently the rage in micro-telecommunications circles, a modem that can transmit and receive at 300, 1200, and 2400 baud is best for online searching. This variety of speeds will provide compatibility with a wide range of services, from low-speed bulletin boards and conferencing centers to the popular commercial database services such as MEDLARS, BRS, DIALOG, COMPUSERVE, etc.

Most modems are "direct-connect." That is, they come with a telephone line that plugs directly into a standard wall jack (known as an RJ-11C). Modems can be internal (contained on a circuit board that is inserted into a slot inside your microcomputer) or external (a separate "box" that is cabled to the microcomputer's serial port). An internal modem, usually less expensive than an external modem, does not use additional desk space and provides its own serial interface to the microcomputer, but does occupy valuable space inside the micro and can be difficult to

* Library, Medical University of South Carolina, 171 Ashley Avenue, Charleston, S. C. 29425-3001.

troubleshoot. Internal modems range in price from \$100-\$300; external modems from \$150-\$450.

The telephone line, an essential ingredient in "online" searching, is often the most vexatious component of the workstation. "Line noise" or random electronic impulses can interrupt the data exchange between your microcomputer and the remote computer. Although it is difficult to eliminate completely, line noise can be quieted by using a single rather than a multi-user phone line, disabling "call waiting," and installing a line filter device.

The standards that apply to printer selection are your personal standards for quality, speed, quietness, and versatility. An inexpensive (\$300-\$400) dot matrix printer will perform well as an online workstation printer, but its quality may not be acceptable for business correspondence or publication proofs. A mid-range (\$400-\$700) ink jet printer is very quiet but usually requires special, more expensive, paper, and still may not provide correspondence quality print. The very expensive (\$1000-\$3000) laser printer produces the highest quality print, but is an extravagance for a printer dedicated to online searching. How much you wish to spend and how many different applications the printer will be used for are generally the determining factors in printer selection.

In addition to the four basic hardware components, an online microcomputer workstation must have communications software. Communications software is the set of instructions that enables all of the hardware to work together productively. Good communications software supports a wide variety of terminal emulation types (e.g., TTY, VT100, IBM3101) enabling the microcomputer to "talk with" a multitude of large computers. Most communications software provides a "dialing directory" or "phonebook" where phone numbers and line settings (i.e., baud rate, parity, data word length, stop bits, etc.) used to access each remote system can be stored for reuse. At the time of a call, one or two keys are pressed and the software does the rest.

Some communications software programs provide a "scripting" or programming feature that allows customization for automatic online

sessions. In some packages, this capability is limited to an automatic log-on which transmits a username and password to each system. In other, more sophisticated packages, the scripting capability allows all search terms to be entered prior to placing the phone call to the remote computer; the entire search session, including the "downloading" of retrieved references, is conducted automatically.

Downloading is the process of receiving data from the remote computer to a disk file on your microcomputer. Downloading generally saves online time; the computer can write to a file faster than a printer can print. It also saves a copy of the data that can be manipulated "off-line" using other software such as word processing, spreadsheet, or database management programs. There is, however, one major caveat to downloading: it may be a violation of copyright law. Vendor subscription agreements will state the downloading policy.

Good communications software can cost from \$50-\$300. The package's expense does not necessarily correlate with its quality or "useability." There are "shareware" programs available at no or low initial cost through local personal computer user groups and electronic bulletin boards. Shareware provides a "try-before-you-buy" option. If the package is found to be useful, remittance of a modest fee to the software developer is in order. Communications software can also be obtained commercially through computer stores or mail order. Some modem manufacturers include "free" communications software with the purchase of their modem. As with most of the components of the online searcher's workstation, once fundamental features are supported, the selection of communications software is mostly dependent upon personal choice.

These, then, are the necessary tools: a microcomputer, a modem, a telephone line, a printer, and communications software. Now all that's needed is a little time to acquaint yourself with the convenience and power of accessing medical information online. □

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ONLINE INFORMATION MANAGEMENT: WHO NEEDS IT?

NANCY C. McKEEHAN, M.S.L.S.*

"Science is a sort of conspiracy that makes knowledge run faster than people...."

—Derek de Solla Price¹

How often, in the course of your office day do medical questions go unanswered? How often do you feel the need to consult the literature for advice on diagnosis or a course of treatment? How satisfied are you with your ability to stay abreast of and assimilate the latest developments in your specialty? Dr. Octo Barnett, of Harvard Medical School, calculates that "if you read two articles a night, at the end of one year you'd be 355 years behind."²

Studies have shown that physicians have a real need for better access to information in their daily practice. Covell found that "answers to questions raised at the time of the patient visit were found only 30% of the time; in a typical half day of office practice, four management decisions might have been altered if needed information had been available at the time of the patient visit."³ In a study by Dabanovic, 20% of the doctors interviewed said that the information supplied to them "directly influenced their treatment of patients and altered their methods" of patient care.⁴ Strasser documents that rural physicians both feel the greatest need and have the most difficulty in obtaining information.⁵ In a recent editorial, Stead acknowledges a similar concern felt by outlying physicians and administrators in small hospitals: that patients will "drive right by them" to seek medical care in the larger cities. Offering a solution, Stead discusses the accessibility of the National Library of Medicine's (NLM) MEDLINE database as "the great equalizer."⁶

Davies discusses access to online informa-

tion as both a time-saving and cost-saving measure for the physician. He points out the inefficiencies of the traditional "garbage can method" of problem-solving, whereby physicians sift through thousands of disconnected threads of factual information to reach a decision and contrasts the ease and speed of conducting an online literature search.⁷ During a search, significant terms are entered into a computer, which then does the work of combining them and logically applies them to the database. The results are limited to meaningful possibilities which may point the way to appropriate testing or treatment. The cost for such a search may be less than \$10.00 and the savings in time, and possibly wasted effort, will be significant.

Medicine is an information-intensive profession. The well-known "literature explosion" has become a time-worn cliché. Yet it is nonetheless real, and complicates the physician's need for current, readily accessible information. Fortunately, there is a solution which is both economical and practical: the use of microcomputers to access online information services designed for use by clinicians. But how do you begin and what will it cost to get started with online searching?

Online access to current medical information is available to all South Carolina physicians through SCHIN, the South Carolina Health Information Network.^{**} With a microcomputer or video display terminal and a modem, physicians can access the major medical library collections in the state. Over 268,000 books, journals and audiovisuals contained in 31 libraries, including the Medical University of South Carolina and the University of South Carolina School of Medicine comprise the catalog databases of SCHIN. In addition to the online catalogs, SCHIN offers

* Library, Medical University of South Carolina, 171 Ashley Avenue, Charleston, S. C. 29425-3001.

** This program was initially supported by NIH Grant No. 5 GO8 LM 04271 from the National Library of Medicine.

miniMEDLINE,^{TM*} a journal citation database representing over 350,000 articles published in the past three years in 350 of the most significant and widely read medical journals.

The SCHIN databases are easy to search, yet offer the sophisticated capabilities inherent in online database searching. Terms can be combined in a keyword search to refine retrieval in the catalogs to very specific subject areas or time periods. Conversely, if all available literature on a disease is needed, the system quickly gathers and displays the titles of books, audio-visual programs, or journals, from which the most appropriate may be selected for use. A major advantage of the online catalog is the presence of both location and status information. When a title is searched, it is readily apparent which libraries hold it and whether the volume is available for use.

SCHIN's miniMEDLINETM system is a carefully profiled subset of the MEDLINE database. Monthly updates keep the database current, offering online access to the latest journal literature. The availability of abstracts for over 60% of the citations in miniMEDLINETM enhances its usefulness and often precludes the need to consult the full article. Should a search of the miniMEDLINETM database indicate the need for a broader literature search, the full MEDLINE system is accessible to SCHIN members using a software package called Grateful Med.

Grateful Med is supplied as part of SCHIN membership. Developed at the National Library of Medicine (NLM), it offers user-friendly access to MEDLINE and other databases at NLM. The program assists the user in each step of the search and does not require use of the special command language used by highly-trained librarian searchers. In contrast to miniMEDLINE,TM a search on MEDLINE covers almost six million citations in over

3000 medical journals published worldwide since 1966.

Membership in SCHIN is open to all health professionals in the state and costs \$100.00 per year. In addition to the databases described, SCHIN offers members reduced fees for information services such as literature searches and document delivery from SCHIN member libraries in the state. This includes libraries at both the Medical University of South Carolina and the USC School of Medicine; state agencies such as DHEC, the Department of Mental Health, and the Commission on Alcohol and Drug Abuse; and over 20 state, federal, and private hospitals across South Carolina.

The accessibility of SCHIN and other online information services relieves the practitioner of the burden of collecting, organizing, and retrieving the knowledge contained in the journals and books which may be at hand, but remain unread and unassimilated. In South Carolina, SCHIN is addressing online information management by providing access to current medical information to any practitioner with a microcomputer and a telephone line.** □

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* miniMEDLINE is a registered trademark of the Dahlgren Memorial Library, Georgetown University Medical Center.

** For information about SCHIN membership, call the Library Systems Office at the Medical University of South Carolina (792-7672) or write the author.

Editorials

INTO THE FRAY: THE COMMUNITY HOSPITAL TREATMENT OF ACUTE MYOCARDIAL INFARCTION

The article by Trask, et al in this issue of *The Journal* reports the data on the efficacy of thrombolytic therapy for acute myocardial infarction in community hospitals. This therapeutic approach not only restores coronary artery patency and reduces mortality but lessens morbidity by improving left ventricular function.

In the TIMI-II-B trial the overall mortality of patients under age 75 was reduced to a remarkable five percent in six weeks. The use of intravenous beta blockers in the early hours of infarction suggested additional benefits for reducing re-infarction. It was also learned that angioplasty (PTCA) performed in the first or second day after Tissue Plasminogen Activator (TPA) did not decrease mortality or improve left ventricular function in stable patients. An unexpected finding was that a significant number of acute myocardial infarctions that were stable did not require immediate catheterization and, if no evidence of ischemia was present on further follow up on non invasive testing, would not require coronary angiography.

The International Study on Infarct Survival (ISIS-II) suggested that Streptokinase and aspirin were equally effective in reducing acute myocardial infarction mortality and the two given together were better than either alone.

As one reviews the literature in an attempt to absorb the rapidly advancing and changing recommendations of TIMI-I and II, and II-B, TAMI, ISIS I, II, and III, GISIS I and II and TPAT, one point remains constant that is not open to debate: the need for early intervention. The best results are obtained within the first four to six hours, and particularly under two hours of the onset of chest pain. These time

intervals are being further investigated in numerous clinical trials to determine the relative effectiveness of therapy initiated after six hours. Many other questions remain to be answered concerning intravenous Heparin, the role of APSAC and the vast cost differential in TPA and Streptokinase.

But the major problem remains before us in the fact that medicine has yet to transfer these advances to enough patients to have a significant impact on the health care delivery system. Several large studies reveal that only 12 to 17% of patients with acute myocardial infarction receive appropriate thrombolytic therapy.

Clearly, a significant number do not meet current established criteria for thrombolytic therapy and are excluded. It is likely that thrombolytic therapy is being under-used in smaller community hospitals since studies have shown that enthusiasm for this treatment modality is less in these institutions. Emergency room physicians, family practitioners, and general internists were considerably less likely to administer thrombolytic therapy than cardiologists in heart centers.

It is important, however, that this not be misinterpreted as promoting widespread use of thrombolytic therapy simply based on the premise that we are not treating enough patients. There can be no substitute for critical patient selection in keen clinical judgement.

The formation of heart networks has addressed this problem by continuing education to professional staffs, Fax equipment for EKG consultation and 24-hour availability of skilled professionals. Backup is also furnished for unstable patients that would require transfer to centers for further treatment and invasive procedures. It is encouraging in our state to see the

early fruits of this endeavor, but efforts need to be continually expanded to reach a larger number of patients. Primary education thrust should emphasize the need for patients to immediately report to their neighborhood community hospitals with the onset of chest pain and not attempt to reach a distant regional center, and thus avoid a critical delay in treatment initiation. The need and safety of thrombolytic therapy in small rural hospitals has

been well established and it is there and not in tertiary regional centers that most major battles will be won or lost. The time for community hospital treatment of acute myocardial infarction with thrombolytic therapy is now.

E. CONYERS O'BRYAN, JR., M.D.
Director, McLeod Heart Institute
Florence, South Carolina 29501

OF SCHIN AND GRATEFUL MED (OR COMPUTERS TO THE RESCUE!)

Like it or not, as physicians we are in the information business. Patients expect the latest information—and rightly so, for it is often essential to optimum care. However, even as entering medical students, we knew that keeping abreast of an ever-burgeoning literature would befuddle even the most conscientious. We knew that textbooks would never suffice, but that managing the journal literature was an almost overwhelming task.

Early in our careers, most of us chose to save our journals as torn pages in file cabinets or as bound volumes on bookshelves. That is, we chose to emulate either Jack the Ripper or John the Binder. Inexorably, the filing system became unmanageable or the bookshelves became inadequate. Storing information became an ever-losing proposition. For years, we heard the promise that computers would some day come to our rescue. Promise has now become reality.

In this issue of *The Journal*, Nancy C. McKeehan outlines the basic details of SCHIN—the South Carolina Health Information Network. This program offers not only online catalogs of medical information but also miniMEDLINE™, a database of articles published over the past three years in 350 or more of the most widely-read journals. One need not be a computer wizard, for the program is user-friendly. Nancy J. Smith, in her companion article entitled "The Hardware Connection," explains how to get started. One might take Ms. Smith's article down to the local computer store for advice about the most cost-effective

computer and modem. Once these have been purchased and installed, one can access SCHIN through the library at either of our state's medical schools or through the Library Systems office at the Medical University of South Carolina (792-7672). I offer but one warning: it's addicting.

SCHIN and systems like it—such as the National Library of Medicine's user-friendly GRATEFUL MED program—reflect the changing function of medical libraries and their librarians. As Dr. Warren (Buzz) Sawyer of MUSC puts it: "We've become information brokers." Librarians trained to shelve and index the bound volumes are now expected to find the most appropriate references and to furnish the abstracts. Still, the physician-users must ask the right questions. There is clearly a need for more physician involvement in the emerging enterprise of "medical informatics."¹

Dr. Eugene Stead points out that near-instantaneous access to MEDLINE has become "the great equalizer" between small hospitals and major medical centers.² We can ask the computer to provide us with the best, most recent articles pertaining to our patient's problem. We can seek either review articles or carefully cross-referenced articles based on a combination of concerns. All of us know that *real* medical knowledge, the kind that stays with us, comes from reading prompted by caring for a patient. Computers, then, seem likely to emerge as the most cost-effective form of continuing medical education.

Today's students know that the future be-

longs not to Jack the Ripper or John the Binder but rather to the computer whiz. Fortunately, becoming a computer whiz has become much easier—for all of us. With little or no fanfare, the libraries at our state's medical schools are cooperating to bring us the best of MEDLINE. SCHIN seems here to stay. We—and our patients—should enjoy immense benefits.

—CSB

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On the Cover:

ST. LUKE'S CHAPEL AND HURRICANE HUGO

This month's cover deviates somewhat from our usual emphasis on medical history to focus on what will prove to be a major historical event for the entire state of South Carolina.

On the cover is a photograph of St. Luke's Chapel on the campus of the Medical University of South Carolina taken on the balmy day following the September 21st visitation of Hurricane Hugo.

St. Luke's was originally part of the federal arsenal built between 1825 and 1830. It is believed to be the first federal property seized by the South Carolinians following secession. Because of a kindness shown to a federal officer during the war, the Reverend Anthony Toomer Porter was given the arsenal to house the school he had established for the boys left orphaned and destitute by the war. The beautiful chapel was created in 1883 from a large brick artillery shed by raising the walls four feet, adding a gothic roof, closing in the sallyports and adding stained glass windows. The chancel window was dedicated to the memory of Dr. Porter's son whose death in a yellow fever epidemic had provided the impetus for the founding of the school.

When the Medical College acquired the Porter property in 1963, the chapel was rededicated as St. Luke's in honor of the beloved physician.

Although it stands in ruins now, there are plans afoot to restore the chapel to its original beauty. The remains of the memorial window

have been salvaged and are being kept in the hope that eventually the window can be restored.

As the Medical University of South Carolina has survived fire, earthquake, and civil war and continued to serve the medical needs of the people of the state, so it will survive Hugo.

BETTY NEWSOM
The Waring Historical Library

ACKNOWLEDGEMENT

The cover photo is courtesy of Jim Nicholson.



FIGURE 1. St. Luke's Chapel before Hugo.

IN MEMORIAM

M. Rodney Culler, M.D., a cardiologist from Orangeburg, died on May 6, 1989. Dr. Culler was a graduate of Emory University and the Medical University of South Carolina. He was an active member of the SCMA.

Alexis B. Calder, M.D., a retired physician from Sumter, died on May 9, 1989. Dr. Calder was a graduate of Springhill College of Alabama, the College of Charleston and the Medical University of South Carolina. He was an honorary member of the SCMA.

Joseph H. King, M.D., a general practitioner from Manning, died on May 20, 1989. He was a graduate of Wofford College and the Medical University of South Carolina. Dr. King was an honorary member of the SCMA.

William B. Ardrey, III, M.D., a Rock Hill pediatrician, died in June of this year. A graduate of The Citadel and Duke University School of Medicine, Dr. Ardrey was an active member of the SCMA.

William H. Prioleau, Sr., M.D., an honorary member of the SCMA, died on June 14, 1989. Dr. Prioleau was a clinical professor of surgery at the Medical University of South Carolina. He graduated from the University of South Carolina and Johns Hopkins University Medical School.

Frederick F. Adams, Jr., M.D., a retired pediatrician from Spartanburg, died on July 10, 1989. Dr. Adams was a graduate of the College of Charleston and the Medical University of South Carolina. He was a disabled member of the SCMA.

Sally B. McCants, M.D., of Columbia, died on July 12, 1989. Dr. McCants graduated from the University of South Carolina and the Medical College of South Carolina. She was an active member of the SCMA.

Gerald W. Scurry, M.D., an honorary member of the SCMA, died on July 26, 1989. A retired general practitioner from Columbia, Dr. Scurry was a graduate of Furman University and the Medical University of South Carolina.

Those wishing to make Memorials in honor of their deceased colleagues may do so by sending contributions to the S. C. Institute of Medical Education and Research, P. O. Box 11188, Columbia, S. C. 29211.

DO YOU KNOW A TROUBLED PHYSICIAN?

SCMA CAN HELP

TURN PAGE TO LEARN HOW

DO YOU KNOW A TROUBLED PHYSICIAN?

THE SOUTH CAROLINA MEDICAL ASSOCIATION CAN HELP

The SCMA's Physicians' Advocacy and Assistance Committee can and wants to be the troubled doctor's advocate. The committee views abuse and addiction to alcohol and other drugs as an illness and deals with it non-judgmentally, non-punitively and therapeutically.

The program functions as a peer to peer activity, whereby an impaired physician will undergo evaluation and receive a treatment program tailored to his or her specific needs in work, family, finances and community. Voluntary participation results in committee advocacy and a protective role with the local hospital, medical society, State Board of Medical Examiners and Drug Enforcement Agency. Voluntary participants following through with treatment and aftercare are not reported to either the State Board or any other group or agency.

WHAT IS AN IMPAIRMENT?

The impaired physician has been defined as one who for any reason is unable to perform professionally at an optimal capacity. That is to say any disability (impairment) that causes a physician to be unable to do anything other than his very best. It is felt by this committee that this definition covers everything from Alzheimer's disease to Alcoholism. This committee has been asked by the State Medical Association to address all forms of impairment or disability in regards to the physicians in the state.

WHAT CAN YOU DO?

The committee would welcome the opportunity to meet with your concerned groups regarding questions about its activities.

Troubled doctors are usually unable to ask for aid themselves. You can help them by:

WRITING: Hugh V. Coleman, M.D., Chairman
 Physicians' Advocacy and Assistance Committee
 South Carolina Medical Association
 P. O. Box 11188
 Columbia, SC 29211
 (803) 423-3342

CALLING: SCMA Headquarters, (803) 798-6207 or after hours
 leave your message at (803) 798-6979

WHAT THE COMMITTEE WILL DO?

Your report will be investigated by a committee member and if verified, a pair of committee members will contact the impaired physician and suggest a plan of recovery. Should they fail to recruit the physician, a second and third team will follow. The physician signs a contract with SCMA limiting, as mutually agreeable, his or her practice and enters treatment. A second contract is executed following treatment for follow-up and assistance in maintaining recovery. At this time a colleague is also appointed to work with the troubled physician for a period of up to two years.



Auxiliary Page

HURRICANE HUGO

Rather than the report on Confluence I which was planned this month, this space is instead being dedicated to the survivors of the Hugo Disaster and to the many auxilians and their spouses who responded with tender, loving care to those less fortunate.

The SCMA, the SCMA Auxiliary and SCIMER have established a Hurricane Relief Fund to provide assistance to the many thousands of Hugo victims in the state. A national appeal has been made to the members of the AMA as well. Checks should be made payable to SCIMER and mailed to: Relief Fund, P.O. Box 11188, Columbia, S. C. 29211.

Auxilians are being encouraged to adopt a stricken medical family for a day or a weekend of much needed "R & R"—a hot meal, a hot shower, a place to do laundry. The Fall Board meeting has been cancelled and funds which would have been spent on the meeting are being donated to the Hugo Relief Fund.

Medical families are working together, nurturing each other and others in their communities. Auxilians are demonstrating that they can respond with their finest efforts in such times of crisis.

ROBIN MEEHAN, *President*

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THE SURGICAL-PROSTHETIC METHOD OF CLEFT LIP AND PALATE CARE: DEVELOPMENT OF A COMPREHENSIVE PROGRAM*

ROBERT F. HAGERTY, M.D.
RICHARD C. HAGERTY, M.D.**
WARREN L. GOULD, M.D.**
THE STAFF OF THE CAROLINA CLEFT LIP AND PALATE CENTER***

The Carolina Cleft Lip and Palate Center was initially organized in 1955 not only for the treatment of children having this defect, but also for research into methods of improved care and for teaching. The initial publication of the method of the cleft lip and palate care devised at this clinic appeared in this journal in 1965.¹ In view of the fact that clefts involve such important areas of anatomy and function, a team of specialists is necessary for their care, including a plastic surgeon, geneticist, pediatrician, otolaryngologist, oral surgeon, orthodontist, dentist, speech pathologist, audiologist, social worker, and nurse. Since its inception, this clinic has cared for over 1,300 cleft children and has presented its results in national

publications and at international meetings. Our purpose is to provide a follow-up report.

The cleft defects of the lip and palate are the most serious of the common congenital abnormalities with an incidence of about one in every 750 births in the USA. The most severe clefts are by far the most common ones involving the lip, nose, alveolar ridge (and teeth), the hard and soft palate and the facial bones. As a result, the cleft defect will produce alterations in eating, speech, hearing, dental development, facial growth and psychosocial maturation, unless a comprehensive approach for treatment is developed.

For many years (1955 to 1965) the conventional method of treatment was followed at this center with repair of the lip in the first six months of life and palatal repair in the second year. Our results, although excellent by conventional standards of treatment, left much to be desired. As a result of leaving the palatal defect open until the second year of life, food and air readily escaped from the oral cavity into the nasal cavity, interfering seriously with the normal processes of eating and speech, in addition to adding to middle ear infection with its attendant hearing loss. Lip repair without support of the divided alveolar segments often

* From the Carolina Cleft Lip and Palate Center, Roper Hospital, 316 Calhoun Street, Charleston, S. C. 29401 (address correspondence to Dr. Robert F. Hagerty).

** Department of Plastic Surgery, Medical University of South Carolina, Charleston, S. C. 29425.

*** Staff members: Virginia H. Edwards; Geraldine D. Fox, R.N.; Mariana K. Roberts, M.D., ACSW, RSW; Patricia R. Weathers, M.Aud., CC-A; Rosalyn K. Monat-Haller, M.Ed., CCC-SLP; Raphael M. Haller, Ph.D.; Olivia C. Palmer, D.M.D.; Howard F. Vincent, Jr., D.M.D.; Carlos F. Salinas, D.M.D.; Ernest B. Bass, Jr., D.D.S.; Richard T. Brock, D.D.S.; Hazel M. Webb, M.D.; and George W. Bates, M.D.

led to their collapse (medial displacement) with resultant malocclusion. Surgical repair of the cleft of the hard palate during this period of rapid growth frequently resulted in lack of maxillary and facial growth with exacerbation of the malocclusion, an abnormally flat facial profile and retarded psychosocial maturation (Illustration 1).

In order to avoid these undesirable results seen in so many patients cared for by the conventional method (both by us and others), an alternative plan of treatment-care was investigated. With the use of a substitute palate, the abnormal opening of the hard palate could be closed with immediate improvement in the functions of eating, speech and hearing (with reduced middle ear infection). With fixation of the substitute palate to the segments of the upper jaw, their movement could be controlled and surgical closure deferred until full hard palatal growth had occurred. As a result, dental development and occlusion together with facial growth could be directed along more normal channels.

From 1965 to 1970, these plans were developed resulting in the surgical-prosthetic method as used today. The following protocol represents the care and steps now followed at the Carolina Cleft Lip and Palate Center:

- six to 10 weeks—Insertion of palatal prosthesis (pin-retained-expandable), sub-total lip repair,² bilateral myringotomies with insertion of tubes.
- six to nine months—Repair of soft palate (double z-plasty³ since 1987), total lip repair, ear examination.
- six to eight years—(Following eruption of the first permanent molar teeth) removal of palatal prosthesis, repair of hard palate, revision of lip and nose as necessary, ear examination.

If, despite speech therapy, speech does not develop normally (ie. hypernasality secondary to velo-pharyngeal incompetence), additional surgery such as velopharyngoplasty may be necessary in ages four to six. Bone grafting of the cleft defects and additional nasal surgery may also be required.

The clinic meets on alternate Saturday mornings to bring the patient and family into direct contact with the team members. Recom-



ILLUSTRATION 1. This is an 18-year-old white female who was born with a cleft of the lip and palate and had her hard palate closed before age 1. She shows a "dish-faced" deformity secondary to deficient growth of the maxilla.

mendations for treatment-care are made by the appropriate professionals and questions are answered. Advice and recommendations on general medical needs, including growth and development, together with the psycho-social problems are offered by the pediatrician and social worker. There is close association with the Children's Rehabilitation Services to provide nursing, social work, nutritional and speech services throughout the state for eligible clients in addition to sponsorship of hospital admissions, dentistry, and orthodontia where possible. All patients and family members are encouraged to ask questions in regard to their care. These are directed to and answered by the appropriate specialist. Recommendations for care are openly discussed by the team members with the family, and support given as needed. The patient is followed by the team at six-month intervals with the prosthesis in place

and then on a yearly basis. With deviation of the dental arch segments or air leaks, the prosthesis may be expanded or modified.

RESULTS

Since 1970, the surgical prosthetic method of cleft care has been utilized in 279 cases in our center. Our experience with eating, speech, hearing, dental development, facial growth, psycho-social maturation and genetics is presented.

A. Eating

With the insertion of the pin-retained expandable prosthesis as a substitute palate at about six weeks of age and repair of the soft palate at about six months, near normal physiological function for eating is restored.

In studies carried out by investigators from outside our center, a marked improvement in feeding was noted. Parents of 30 children were interviewed both prior to and after insertion of the prosthesis. Prior to insertion, 63 percent found feeding to be somewhat difficult, after insertion 87 percent of the patients found feeding to be easy, and the majority finding feeding to be no more difficult than with their non-cleft siblings. Loss of food through the nose dropped from 90 percent to 10 percent.

B. Speech

With the surgical prosthetic method of care, the hard palatal defect is obturated at six weeks and near normal palatal physiology obtained at six months with repair of the soft palate. In addition, there is marked reduction in the incidence of malocclusion and arch collapse.

Probably the most important aspect of speech in cleft patients is the quality of the closure of the soft palate in separating the oral and nasal cavities to prevent hypernasality. This center has been active in research in this field and our studies have shown that this method of care is superior to the conventional in having fewer speech sound errors. About 80 percent of the patients correctly produced all of the high pressure sounds which are most often misarticulated by cleft palate patients. The majority of the patients developed normal speech by the age of 12 years. This is attributed to the superior velo-pharyngeal valving and fewer dental or dental arch deviations.^{4, 5}

C. Hearing

With conventional treatment, myringotomy with insertion of tubes is frequently delayed until lip repair at about six months of age or may be omitted. With palatal closure postponed until the second year of life, food and fluids are projected into the nasopharynx adding to the problems of inadequate eustachian tube function. The incidence of middle ear infection with associated hearing loss is increased as a result of these delays.

With the surgical-prosthetic treatment, the early bilateral myringotomy with insertion of tubes and insertion of the palatal prosthesis improves the aeration of the middle ear and decreases the displacement of food into the nasopharynx. The soft palatal repair and reconstruction of the levator veli palatini musculature is carried out at about six months of age giving further protection to the nasopharynx from contamination of oral contents and increased eustachian tube function resulting in decreased conductive hearing loss.

An analysis of 35 patients treated here utilizing Puretone Audiometry, speech audiometry, and tympanometry showed that children less than five years of age had temporary reduction in hearing due to middle ear pathologies. This age group is normally at risk for middle ear pathologies amongst the general population. Test results showed a majority (70%) exhibited normal hearing at six years of age and older comparing very favorably with the findings in the general population.

D. Dental Development

The surgical-prosthetic method was designed to secure normal anatomical relationships. A subtotal lip repair is carried out to put limited extra-oral pressure on the relatively uncalcified arch segments, and the prosthesis inserted to improve or maintain their relative positions. This approach has resulted in a greatly improved arch form and dental occlusion.⁶ No loss of teeth resulting from the insertion of the pins has been found.⁷

These extensive studies utilizing dental impressions, bite plates, and photocopies of the dental study models with measurements subjected to statistical analysis have shown a marked improvement in arch form and dental occlusion when compared to the results ob-

tained with conventional surgery with no prosthetic support.

E. Facial Growth

Facial growth in the unoperated cleft lip and palate patient is generally within normal limits. In conventional treatment, with repair of the hard palate in the second year of life within the period of rapid growth of this structure, a flat or recessed mid-facial profile is seen in a large proportion of the postoperative cases. As a result of delaying surgical closure of the hard palate until the majority of the maxillary mid-facial growth is complete, negligible effects on normal facial development have been seen (Illustration 2, 3, 4). This has been confirmed by our cephalometric studies utilizing the most modern and reliable concepts of measurement.⁸

F. Psycho-social Maturation

The birth of a child with a cleft of the lip and palate causes an immediate emotional problem for the parents. They experience shock, anxiety, depression and guilt. These feelings and those of rejection are expressed in over-protection, indulgence and denial.

Since initiation of the surgical prosthetic



ILLUSTRATION 2. Female infant born with bilateral cleft lip and palate. A P projection.

method the patient has been assured a more normal and acceptable appearance. With appearance having such an important impact on self and others, this method of treatment has had a significant positive psycho-social impact.

A study carried out by an objective group of researchers found, with the use of the Vineland Social Maturity Scale, that the social age for these patients approximated their chronological ages.



ILLUSTRATION 3. A P same patient seventeen (17) years later after treatment of the bilateral cleft lip and palate using the prosthetic method.



ILLUSTRATION 4. Lateral projection of same patient.

G. Genetics

The majority of the cleft lip and palate cases are isolated defects and are compatible with the multifactorial mode of inheritance and relatively low risk recurrence. However, up to 25 percent of the cleft cases represent complex disorders such as single gene syndromes, aberrations or teratogenic defects.

The genetic evaluation of a cleft lip and palate patient is designed to distinguish the isolated cleft defects (without associated malformations) from those that represent a genetic syndrome or a teratogenic defect. This step is of utmost importance to provide proper genetic counseling for the parents of an affected child as well as for the treatment modifications and results expectations regarding a given case.⁹

CONCLUSION

The surgical-prosthetic method is designed to secure near normal anatomy and function at the cleft site as early as possible with minimal limitations to optimal development. As compared with the results of conventional treatment, marked improvements have been seen in eating, speech, hearing, dental development, facial growth and psychosocial maturation.¹⁰

The possible complications associated with a prosthesis of this type such as irritation of the underlying mucosa by trapped food particles, osteomyelitis, sinusitis, and loss of teeth have not been seen. Lack of growth of the maxilla with the resulting flat or recessed facial profile with severe malocclusion now is a rarity. This tragedy is all the more serious in that these defects must be endured through the most important years of development, until full growth is attained before the necessary extensive and expensive corrective surgery can be carried out. In light of this frequent complication of conventional cleft surgery, the multiple limited operative procedures of the surgical-prosthetic method, including replacement of the prosthesis to obtain complete expansion or obturation, are a satisfactory alternative (Illustration 5).

This method of care has now been utilized by cleft palate centers in four university medical schools and by numerous plastic surgeons in private practice. □



ILLUSTRATION 5. Photograph of the prosthesis in place over the maxillary mold showing how the prosthesis fits in position.

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IDENTIFICATION AND INTERVENTION FOR ALCOHOL ABUSE

STEPHEN HOLT, M.B.*

Studies on the prevalence of alcohol abuse in hospital and private practice indicate that many patients who have drinking problems may pass unrecognized.¹⁻⁴ Problem drinkers are ubiquitous in clinical practice and evidence has accumulated that physicians may be experiencing a "tip of the iceberg" phenomenon. If early identification of alcohol abuse is an appropriate intervention for the alcohol problem, why do physicians generally avoid, forget or miss the diagnosis? This paper will examine some of the aspects of screening for alcohol abuse that have precluded its general introduction and highlight the need for systematic case identification and brief intervention in selected patient populations.

CRITICAL ISSUES IN SCREENING FOR ALCOHOL ABUSE

Physicians are tired of being told that they fail to detect the "alcoholic."⁵ Pause a moment and consider those factors that confound diagnostic acumen. Careful study of the spectrum of drinkers depicted in Figure 1 may provide some insight. For approximately three quarters of the population of North America, alcohol is not a problem and its controlled use may provide advantages such as the enhancement of the appreciation of food and some social functions. There is a small group (approximately five percent) of adult males who show major symptoms of alcohol dependence but there is a much larger group who constitute "problem drinkers" (Figure 1). The problem drinker is amenable to identification and intervention at a stage in his or her illness where irreversible disease is absent, social stability can be retained and prognosis for recovery is favorable^{1, 2} (Figure 2). Clearly, the medical profession must accept some responsibility for confronting alcoholism, but by what method?

* Department of Medicine, University of South Carolina School of Medicine, 2 Richland Medical Park, Suite 506, Columbia, S. C. 29203.

FIGURE 1

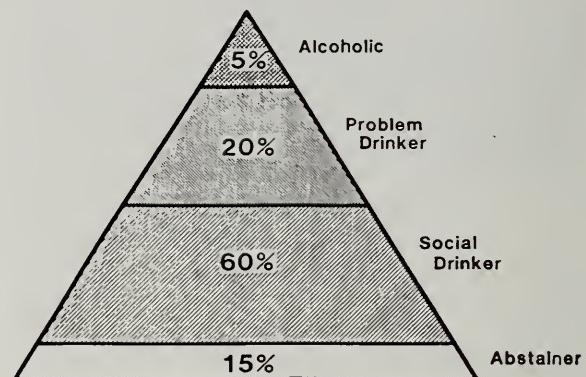


FIGURE 1. This diagram depicts the expected spectrum of drinking habits in North American society. Reproduced from "The Alcohol Clinical Index," Skinner HA and Holt S, 1987, published by the Addiction Research Foundation, Toronto, Canada.

FIGURE 2

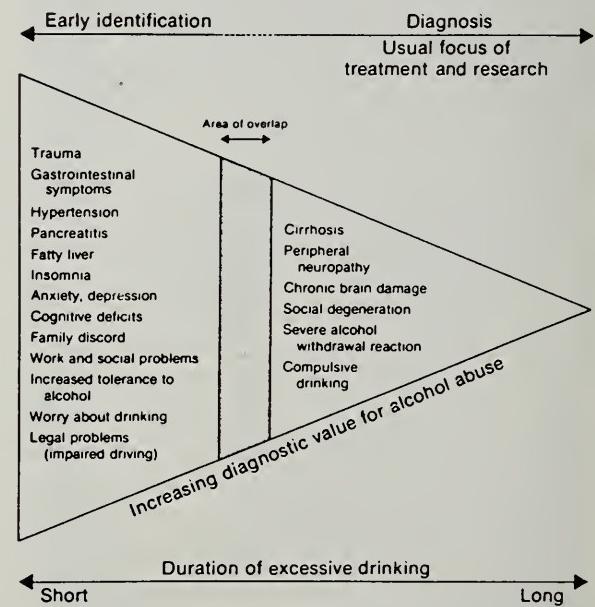


FIGURE 2. Figure 2 demonstrates that the morbidity profile of alcohol abuse changes with the duration of excessive drinking and highlights the importance of the development of sociobehavioral disorders in early problem drinkers. Reproduced from "The Alcohol Clinical Index," Skinner HA and Holt, S, 1987, published by the Addiction Research Foundation, Toronto, Canada.

The detection of early problem drinkers will not occur efficiently in a setting where medical information is recorded at the expense of sociobehavioral factors.^{1, 2, 6, 7} The physical consequences of alcohol abuse may only become apparent after a prolonged period of hazardous drinking (Figure 2) and early problem drinkers are frequently devoid of any physical findings on clinical examination.^{7, 8} Medical education has focused on defining the biological consequences of excessive drinking without stressing the importance of psychological and social factors that can establish an early diagnosis.⁷ This educational process breeds a type of practice that explains, in part, why medical and social sciences literature is replete with observations that alcohol abusers are misdiagnosed, missed or ignored.^{1-4, 9}

The primary care physician or nurse practitioner is often in a good position to identify excessive drinkers who do not consider themselves "alcoholic."⁹ A promising basic strategy is to identify and intervene with brief counselling before the patient has developed major

symptoms of alcohol dependence⁸ (Table 1). The cumulative impact of this approach should result in a large number of patients undergoing low-cost intervention at early stages of problem drinking when outcome is potentially favorable.¹⁻³ Unfortunately, acceptance of this approach has been hindered in several ways. Physicians in primary care practice have complained about what they consider unfair systems of reimbursement which tend to reward the performance of "procedures" at the expense of time-intensive cognitive activity, such as history taking and counselling. This has resulted in a major financial gap between technology orientated and time-intensive medical care. This situation provides a major disincentive for early intervention programs for alcohol problems which may represent an unattractive financial proposition for the physician in private practice in the U.S.A. The economics of medicine may play a major role in the failure of the introduction of secondary prevention for alcohol problems and financing remains a key determinant of the lack of general acceptance and utilization of such programs.^{1, 2, 8}

HOW SHOULD DETECTION OCCUR?

A number of factors appear to be important for the physician to adopt secondary preventive strategies in clinical practice. The simplest clinical measure would be to take an adequate drinking history in everyday practice.^{8, 10} This routine act may make more impact than any hierarchical progression through diagnostic instruments of increasing sophistication.^{1, 2} Physician alertness, suspicion and tact in a simple direct interview would often uncover the "occult" problem drinker without alienation or compromise of the "patient-doctor" relationship. This approach should perhaps supersede any consideration of validity or reliability of the instruments that are available to detect alcohol abuse.

The more promising biochemical markers of excessive drinking, such as gamma-glutamyl transpeptidase (GGT) and mean corpuscular volume (MCV), have only moderate diagnostic sensitivity in ambulatory populations, and these tests may return to normal following a short period of abstinence or a significant reduction in alcohol consumption.^{2, 11, 12} Re-

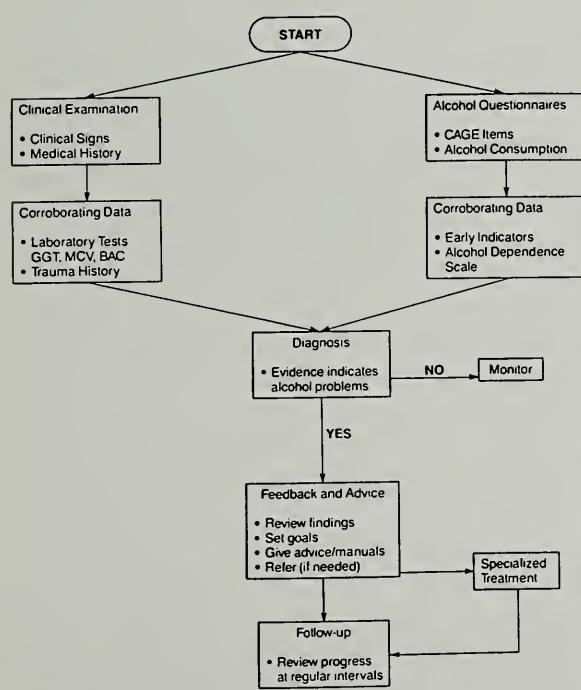


TABLE 1

This algorithm could be utilized in clinical practice in the routine management of patients with alcohol problems. Reproduced from "The Alcohol Clinical Index," Skinner HA and Holt, S, 1987, published by the Addiction Research Foundation, Toronto, Canada.

cent studies have shown that diagnostic accuracy can be enhanced by the combined use of historical data and laboratory tests.^{11, 12} In a comparison of laboratory tests and questionnaire data, the best laboratory test detected only a third of alcoholics, whereas three brief interviews each identified nine out of ten alcoholics.¹²

Given these findings, one might question why a brief diagnostic questionnaire such as the CAGE¹³ is not given routinely as part of a diagnostic medical history? The CAGE is an acronym derived from questioning whether the patient feels a need to Cut down on drinking, is Annoyed by criticism of his or her drinking, feels Guilty about drinking, and even drinks first thing in the morning (Eye-opener).¹³ It is increasingly recognized that the systematic use of brief questionnaires, consideration of laboratory tests² (e.g., GGT, MCV) and recording of blood alcohol levels among selected patients¹⁴ would result in the identification of many patients who misuse alcohol.

DIAGNOSTIC INSTRUMENTS

Key instruments for the diagnosis of alcoholism that incorporate medical data include the National Council on Alcoholism (NCA) criteria,¹⁵ the Michigan Alcoholism Screen Test (MAST),¹⁶ the Munich Alcoholism Test (MALT),¹⁷ Alcohol Use Disorder Identification Test (AUDIT)¹⁸ and the Alcohol Clinical Index (ACI).¹⁹⁻²⁰ Although the NCA criteria provide a comprehensive list of main physical, social and psychological sequelae of alcoholism, many of these criteria appear to be redundant for identifying the alcoholic patient. In one study, there was no significant difference between alcoholic and control patients according to 38 of 86 of the NCA criteria.²¹ The MAST is a widely used instrument containing 25 items that refer to the medical, social, intrapersonal and legal consequences of problem drinking.¹⁶ The total MAST score classifies patients along a continuum according to the degree of alcohol misuse.¹⁶ The test can be completed expeditiously by interview or by self report, and encouraging results on its reliability and validity have been observed.¹ However, patient denial may be a problem for the MAST.¹

By including objective data, such as clinical signs and laboratory findings, that indicate the presence of alcohol-related diseases, it may be possible to corroborate interview and self-reported data, thereby obtaining a more accurate assessment of alcohol abuse.^{1, 2, 17, 19, 20} This approach was used by Feuerlein and associates¹⁷ to develop the MALT. This test contains two sections: part A is completed by the clinician, and part B, which contains 24 items pertaining to alcohol abuse and its adverse social and somatic effects, is completed by the patient. Although the MALT has produced encouraging results, it seems that the medical items contained in part A are sensitive only to disorders that develop in the later stages of alcohol abuse.^{7, 8} Nevertheless, this test is a reasonable prototype of short tests that combine medical and psychosocial indicators of alcohol abuse.⁷

The common association of alcohol abuse with trauma^{14, 22} has led to the development of the Trauma Scale which is a diagnostic instrument that may have widespread appeal to a physician because it is relatively unobtrusive and utilizes biomedical data almost exclusively. This scale was developed in a study⁵ involving 68 ambulatory patients with known alcohol problems and 68 social drinkers matched for age and sex. A short questionnaire about the patients' history of trauma was found to identify seven out of 10 subjects with drinking problems. In contrast, abnormal values for gamma-glutamyl transferase, mean corpuscular volume, or high density lipoproteins had only moderate sensitivity (26% to 40%) for identifying alcohol problems in these subjects but excellent specificity (88% to 99%) for ruling out cases. This study suggests that a brief history of trauma is valuable for the early detection of problem drinking in ambulatory populations,^{5, 20} in contrast to laboratory tests, which appear to have reasonable sensitivity with more chronic "alcoholics." The Trauma Scale⁵ provides a diagnostic strategy, for detecting alcohol problems, that could be readily implemented in general clinical practice.

The ACI was developed in a study¹⁹ that was designed specifically to determine reliable indicators of alcohol abuse. In this study,¹⁹ a comprehensive set of clinical and laboratory information¹⁻² was acquired from three groups

of subjects with a wide range of drinking histories. Findings from clinical examination provided greater diagnostic accuracy than laboratory tests for detecting alcohol abuse.¹⁹ Logistic regression analysis produced an overall accuracy of 85-91% for clinical signs, 84-88% for items from the medical history, and 71-83% for laboratory tests in differentiating the three groups. Further analyses showed 17 clinical signs and 13 medical history items that formed a highly diagnostic instrument (the ACI) that could be used in clinical practice.²⁰ Despite recent emphasis in biomedical literature on the laboratory diagnosis of alcohol abuse, these findings imply that simple clinical measures seem to provide better diagnostic accuracy.^{19, 20}

The findings, during the development of the ACI, underscore the value of selected items from the medical history and clinical signs, which can be combined to form an objective index. The AUDIT is a similar instrument to the ACI that was developed by a working party of the World Health Organization.¹⁸ The AUDIT can be utilized in a variety of primary care settings, and it consists of the core AUDIT which is a brief interview that may be incorporated into a medical history and an optional component, the clinical AUDIT which consists of two interview items, a brief physical examination and a laboratory test.¹⁸ However, unlike the ACI,^{19, 20} the AUDIT¹⁸ was derived empirically and not by statistical methodology based upon data collected in a population with a wide spectrum of drinking habits.^{19, 20}

Previously, incomplete knowledge of the diagnostic power of specific clinical items has prevented firm recommendations about indicators of excessive drinking. The ACI^{19, 20} could be applied routinely during clinical examination and corroboration could be achieved by a brief questionnaire on alcohol problems such as the MAST or CAGE, as well as by laboratory tests including mean corpuscular volume and glutamyl transferase activity.²⁰ This practical strategy (Table 1) could make significant inroads on identifying drinking problems that often remain undetected in medical practices.⁸

Biological markers of excessive drinking have enticed the would-be "screeners" but as yet no single laboratory test on body fluids has

shown acceptable sensitivity during screening.² Small reductions in specificity during screening are translated into unwanted false positives and significant misclassification.² Low cost screening technology should be further explored in clinical practice. The use of breathalyzer instruments^{14, 23} or microcomputers¹⁶ in selected contexts hold considerable promise in this regard. Emerging biological tests, especially assays of body fluids, that promise of superior diagnostic ability must be viewed with caution or healthy skepticism.

QUESTIONABLE EFFECTIVENESS OF INTERVENTIONS?

Alcohol abuse defies some of the axioms of preventive medicine.^{1, 2} It is inappropriate to detect a disease for which effective treatment is lacking. This raises a serious question. Do we at this time have interventions that can significantly alter the course of alcohol abuse? The available evidence is promising but not convincing. A consistent finding from research on the treatment of alcohol abuse is that patient characteristics have a greater effect on the outcome than the kind of treatment given.¹ If we lack interventions that are powerful enough to alter the course of alcohol abuse, then the early identification of causes may yield meager results.¹ In addition, the mere identification or labelling of patients can produce deleterious effects.¹

Consensus is lacking on definitions of the alcohol related disorders that need to be identified and alcohol abuse does not present a readily recognizable, clear cut syndrome.^{1, 2, 14, 19, 20} Undoubtedly, one explanation for the lack of precise definitions of alcohol abuse or "alcoholism" is the complexity of disorders that are determined either directly or indirectly caused by alcohol abuse. The traditional concept of alcoholism as a single specific disorder has failed to adequately represent the diverse and multifaceted problems related to drinking with the result that the multiple-syndrome concept is gaining ascendancy.^{1, 24} However, considerable work is needed to refine the definitions of hazardous drinking and the associated alcohol related syndromes.^{1, 2, 18}

NEED FOR INNOVATIVE APPROACHES TO TREATMENT (INTERVENTION)

The intensity of present treatment methods,

which are aimed primarily at rehabilitation, may be unnecessary for helping those at an early stage of alcohol abuse. There are indications that a lower cost intervention, consisting of assessment, brief counselling and follow-up, can yield results that are comparable to those of traditional inpatient and outpatient programs for alcohol abuse.²⁵ This basic intervention could be readily adapted to clinical practice and general hospitals.⁸ Although further clinical investigation is needed, it appears that a brief advice session, given by physicians in the earlier stages of excessive drinking, could have the widespread impact of curtailing the prevalence of alcohol related disabilities.^{1, 2, 6, 8}

In addition to low cost clinical interventions, another approach is a large scale prevention program, like the heart disease prevention program of Stanford University in Palo Alto, California.²⁶ In this study, involving three communities, intensive instructions given to individuals identified as being at high risk for heart disease significantly reduce such physiologic indices of risk such as blood pressure, relative weight and serum cholesterol concen-

tration.²⁶ This finding suggests that mass media educational campaigns directed at entire communities can be effective in reducing the risk of cardiovascular disease. Although a similar program may prove successful in reducing the prevalence of alcohol abuse, especially for individuals identified as being at risk, research to date indicates that influencing patients' attitudes toward alcohol use will not necessarily change their behavior to healthier patterns.²⁷

SUMMARY

Early diagnosis of alcohol abuse with brief intervention, in appropriate clinical settings, offers great promise for the reduction of the prevalence of alcohol related morbidity and mortality.^{1, 2, 19, 20} Secondary prevention of alcohol abuse offers promise for a reduction in alcohol related mortality and morbidity that cannot be readily achieved in an acceptable manner with primary preventive or conventional rehabilitative measures. A concerted medical effort, using simple diagnostic methodology^{16, 18-20} to find cases and offer advice about drinking,⁸ will undoubtedly result in a positive impact on alcohol problems. □

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RECURRENCE OF NODE-NEGATIVE BREAST CANCER IN PATIENTS TREATED IN A COMMUNITY HOSPITAL*

BETTY M. HAHNEMAN, M.D., M.P.H.**
SHIRLEY J. THOMPSON, Ph.D.
WILLIAM H. BABCOCK, M.D.
SUSAN SALTERS, B.A., C.T.R.

Standard treatment of primary breast cancer includes surgical removal of the tumor, along with some or all of the axillary lymph nodes. In women who are node positive, that is, in whose nodes malignant cells are found, microscopic spread of tumor to other areas of the body is assumed to have occurred, and adjuvant hormonal and/or antineoplastic drug therapy is usually recommended.

Since a majority of patients who are node negative do not have recurrence of tumor, standard management has been to recommend no adjuvant therapy for these women, and none was recommended for routine use by the most recent NIH Consensus Conference (1985).¹ However, in May, 1988, a brief notice termed a "Clinical Alert" was sent from the National Cancer Institute to physicians in the United States who treat breast cancer. This communication stated that, in the node negative patient, adjuvant hormonal or cytotoxic drug therapy "represent credible therapeutic options worthy of careful attention."² The Clinical Alert has been generally interpreted as recommending that adjuvant treatment be considered for all node negative breast cancer patients. The recommendation was based on the results of clinical trials which had not yet been published, but were briefly summarized in the Clinical Alert; they have been published subsequently.^{3, 4, 5, 6}

There is controversy in the Oncology community with regard to the appropriateness of

systemic treatment in node-negative patients. The emergence of this issue has made it important to identify those patients who are at high risk of recurrence, that is, those who are most likely to be benefited by adjuvant therapy, and in whom the potential benefit might justify the risks and costs of such treatment.

Physicians at Baptist Medical Center Columbia (BMCC) who are involved in the management of patients with breast cancer proposed that data from the Medical Center's Cancer Registry be used to investigate that institution's experience with node-negative breast cancer.

The present study addresses two questions:

1. What is the rate of recurrence of breast cancer in patients who are node-negative at the time of first treatment?
2. What, if any, clinical factors are associated with recurrence?

METHODS

Data for this study were obtained through the BMCC tumor registry. The study population consisted of women who were diagnosed as having carcinoma of the breast during the years 1979 through 1983, and who were treated at BMCC. Criteria for inclusion were:

1. Histologic diagnosis of carcinoma of the breast.
2. Axillary nodes removed at the time of diagnosis and found to be negative for tumor on histologic examination. (Due to the retrospective nature of the study, the number of nodes examined in each specimen could not be determined.)
3. Initial therapy (all or part thereof) carried out at BMCC.
4. No evidence of metastatic disease at the time of diagnosis.

* From the Department of Epidemiology and Biostatistics, School of Public Health, University of South Carolina (Drs. Hahneman and Thompson) and the Baptist Medical Center Columbia (Dr. Babcock and Ms. Salters), Columbia, S. C.

** Address correspondence to: Betty M. Hahneman, M.D., 600 Woodrow Street-J, Columbia, S. C. 29205.

5. No evidence of inflammatory carcinoma.
6. No prior diagnosis of breast cancer and no prior mastectomy.

Appropriate records were abstracted for information on age, menopausal status, TNM stage, size, histologic type, presence or absence of estrogen receptors in the primary tumor, surgical procedures performed, radiation or chemotherapy administered as part of the initial treatment and site of first tumor recurrence. Women 50 years and over were assumed to be postmenopausal and those 49 or less to be premenopausal, when clinical records did not indicate otherwise. Tumor size was defined as maximum diameter in centimeters as stated by the pathologist on the written report of the tissue examination.

Tumors were classified as ductal or lobular in type: duct included papillary, comedo, mucinous, scirrhous, or any other type of ductal origin. Tumors were also classified as either invasive or *in situ*; all diagnoses were taken from the examining pathologist's report.

TNM stage was determined using criteria in the *Manual for Staging of Cancer*, 2nd Edition, the standard for use in all approved cancer registries in the United States.

Estrogen receptor status was defined as levels of greater than 10 femtmoles of receptor per gram of cytosol protein or a report of "positive" or "negative" on the clinical record.

Standard annual follow-up procedures, as required for Cancer Registries approved by the Commission on Cancer of the American College of Surgeons were used by the Registry to determine time in months to recurrence, death, last follow-up, or loss to follow-up.

Frequency tables were constructed to evaluate the data with calculation of means and standard deviations when appropriate. Chi-square statistics were employed to test for significance of associations between clinical factors and tumor recurrence.

RESULTS

Of the 786 women seen at BMCC for primary diagnosis or treatment of breast cancer during the five-year study period, 238 (30.3 percent) were identified as node-negative.

Table 1 shows that of the 238 node-negative patients, 19, or eight percent, died of other or unknown causes or were lost to follow-up;

TABLE 1
Outcomes for Node Negative Breast Cancer Patients
Baptist Medical Center, 1979-1983

		Number	Percent
Status:	Recurrence	46	19.3
	No recurrence	173	72.7
	Died, other	9	3.8
	Died, unknown cause	5	2.1
	Lost to follow-up	5	2.1
	Total	238	100.0
Follow-up (in months):	Mean 68.6 months; S.D. 28.9 months		
Site of first metastasis:	Local-regional	15	34.1
	Bone	14	31.8
	Liver	3	6.8
	Lung	3	6.8
	Brain	1	2.3
	Parotid gland	1	2.3
	No information	7	

Two patients with distant metastases had tumors found at an additional site upon evaluation at time of first metastasis: 1 to lung, 1 to brain.

these patients were not included in the analyses. Follow-up post diagnosis averaged 5.7 years.

The study population is about evenly divided among the age groups under 50, 50-60, 60-70 and over 70 (Table 2). The patients are predominantly white, postmenopausal, with ductal type, infiltrating tumor histology. Just over 25 percent had tumors of one centimeter or less, and nearly two-thirds (64.6 percent) had tumors two centimeters or less in diameter.

Estrogen receptor tests were performed for two-thirds of the patients, but results were not available in all cases. More than half of the estrogen receptor results which were obtained were positive. Surgical treatment in over 90 percent was modified radical mastectomy; nearly half received radiation therapy, only two received adjuvant chemotherapy.

Chi-square tests were used to determine if tumor recurrence was associated with age, menopausal status, stage, tumor size, and estrogen receptor status. Of these characteristics, only tumor size showed a significant association with tumor recurrence. Table 3 presents the results by tumor size category; for each increase in size category, there is approximately a 10 percent increase in rate of tumor recurrence. Expressed in terms of relative

TABLE 2
Characteristics of Node-Negative Patients
(N=238)

		Number	Percent
Age:	<40 years	17	7.1
	40-49 years	47	19.7
	50-59 years	63	26.5
	60-69 years	56	23.5
	>70 years	55	23.1
Mean 58.5 years; s.d. 13.2 years			
Race:	White	214	90.3
	Black	22	9.3
	Other	1	0.4
	Missing	1	
Menopause:	Premenopause	59	24.7
	Postmenopause	179	75.2
Histology:	Ductal	216	90.8
	Lobular	22	9.2
	Infiltrating	226	95.0
	In situ	12	5.0
Size: (maximum diameter)	1 cm. or less	57	25.6
	1.1-2 cm.	87	39.0
	2.1-3 cm.	57	25.6
	>3 cm.	22	9.9
	none recorded	15	
Stage:	0	12	5.4
	1	134	60.4
	2	76	34.2
	missing	16	
Estrogen: (receptor status)	Positive	97	56.7
	Negative	74	43.3
	not done/unknown	67	
Mastectomy:	Modified radical	218	91.6
	Radical	12	5.0
	Segmental	8	3.4
Radiation:	Done	101	42.4
	Not done	137	57.6

risks, patients with tumors of 1.1 to 2 cm in size are approximately twice as likely to experience recurrence than patients with smaller tumors; patients with tumors greater than 3 cm are four times more likely to have tumor recurrence than patients with tumors less than 1 cm. Also shown in Table 3 is the analysis of recurrence by TNM Stage, where a significant association was not demonstrated; the p value of 0.08, however, approaches significance and a larger number of cases would likely clarify the association.

When radiation therapy as part of initial treatment was examined, no association with recurrence was seen, even when tumor size was

controlled (Table 3). Analysis of radiation therapy for association with site of first recurrence (local-regional versus systemic) produced some evidence of radiation having a protective effect against local-regional recurrence, but the p value of 0.07 did not reach the desired level of significance. There were only 37 patients on whom information as to site of first recurrence was available. Larger numbers of patients are needed to adequately evaluate the effect of radiation therapy on recurrence; however, this may be of interest since many patients receiving radiation were thought to be of increased risk of local recurrence.

A number of studies have been published showing recurrence rates in patients with node-negative breast cancer; most cite recurrence rates in the range of 20 to 30 percent. The untreated control groups of the studies upon which the Clinical Alert was based^{3, 4, 5, 6} show recurrence rates of 23 to 31 percent. A large series published by Nemoto, et al.⁷ represents the results of national survey taken by the American College of Surgeons; their recurrence rate of 19 percent is probably more representative of community practice than are the others, which are based on groups of patients selected for clinical trials.

Table 4 compares the study population at BMCC with the untreated control groups of the studies upon which the Clinical Alert was based, with regard to several characteristics. It is evident that the BMCC patients were older (and, in particular, had a much higher proportion of women over 70 years of age), had smaller tumors, and had a lower recurrence rate, despite a longer follow-up. It is interesting to note that the recurrence rate of 21 percent in this series is very close to the 19 percent rate reported by Nemoto et al. in the large national survey series.

DISCUSSION

This study has documented a recurrence rate of 21 percent in patients treated at Baptist Medical Center Columbia for node-negative breast cancer, which is less than that seen in the untreated control groups of the studies on which the NCI's Clinical Alert was based; the BMCC population also differs from these groups as to age and tumor size.

Given the differing population characteris-

TABLE 3
Recurrence by Tumor Status in Node Negative Breast Cancer Patients

Status	No Recurrence	Recurrence	Percent Recurrence	Relative Risk
Tumor Size				
1 cm. or less	49	5	9.3	1.0*
1.1-2 cm.	61	17	21.8	2.3
2.1-3 cm.	37	15	28.9	3.1
>3 cm.	13	8	38.1	4.1
Chi-square = 9.716, p = .02 (3 df)				
TNM Stage				
Stage I	99	23	18.9	1.0*
Stage II	49	21	30.0	1.6
Chi-square = 3.13, p = .08 (1 df)				
Tumor Size				
<= 2 cm.	Yes	43	8	15.7
	No	67	14	17.3
> 2 cm.	Yes	23	13	36.1
	No	27	10	27.0
Chi-square = .05, p = .82 (3 df)				

Totals vary due to missing values.

* Referent group

** Risk of recurrence with radiation therapy controlling for tumor size.

tics, and considering the small differences in disease-free survival demonstrated in the four Clinical Alert studies, the decision as to whether to recommend adjuvant treatment for any given patient with node negative breast cancer remains a difficult one. On the basis of the findings presented here, tumor size appears to be the only variable significantly associated with recurrence rate in the BMCC population.

The increased use of mammographic screening in community practice should increase the proportion of patients in the most favorable group, those with tumors under 1 cm. in diameter. It is also quite possible that one or a combination of the new laboratory tests now being investigated will be of help in making

treatment recommendations. Additionally, the development of more effective and less toxic treatments could improve the potential benefits of adjuvant therapy to patients with node-negative breast cancer.

Given that the characteristics of the patients in this study differ from those on which the Clinical Alert was based, it would be of interest to examine factors associated with recurrence among all women in South Carolina diagnosed with node-negative breast cancer. Certainly larger samples of patients would enhance the validity and usefulness of the current analysis. The currently proposed statewide tumor registry would allow a more complete evaluation of these and other cancer issues. □

TABLE 4

Patient Characteristics and Recurrence Rates in BMCC Study Compared to Rates Among Untreated Controls from Node-Negative Breast Cancer Studies

<i>Study</i>	<i>Proportion of Patients</i>					<i>Years of follow-up</i>
	<i>Age <50</i>	<i>Age >70</i>	<i>Tumor <= 2cm</i>	<i>Recurrence rate</i>		
BMCC (1979-1983)	.27	.23	.65	.21		5.7
Fisher (1989) ³ (NSABP ER -)	.58	0	.46	.29		4
Fisher (1989) ⁴ (NSABP ER +)	.31	0	.58	.23		4
Monsour (1989) ⁵ (Intergroup)	.62	*	*	.31		3
Goldhirsch (1989) ⁶ (Ludwig)	** (.55 premenop)	no data	.41	.27		4

* Data not presented in publication; figures of closest group given for general comparison.

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SCMIA NEWSLETTER

DECEMBER 1989

HIGHLIGHTS OF NOVEMBER 16 BOARD OF TRUSTEES MEETING

The Board heard a report on plans for the 1990 Annual Meeting at the Omni Hotel in Charleston, April 25-29. Topics for plenary sessions include disaster planning (the Hugo experience), infectious diseases update, wellness, and sports medicine. Workshops will feature a PRO update, RBRVS, medical ethics, respiratory management in the elderly, and AIDS/OSHA regulations. In addition, 10 specialty society groups will hold scientific sessions. You should receive preliminary information on all activities, as well as registration forms, in February.

The Board voted to nominate William Goudelock, MD, and John Simmons, MD, to the board of Medical Review of North Carolina (SC PRO). John Simmons, MD, also serves as an at-large member of the MRNC Executive Committee.

Members of the Board adopted a proposal by the Primary Care, Medicaid & Indigent Care Committee which would encourage more physicians to care for Medicaid and indigent patients to assure that all physicians see their fair share.

The Board commended Scott B. Kleber, MD, a MUSC resident, for his excellent editorial regarding hurricane Hugo, "A View from the Hospital," which appeared in the November 17, 1989 issue of JAMA.

MEDICARE UPDATE

Reassignment of Benefits (Medicare and Medicaid)

CONTRARY TO INFORMATION PUBLISHED PREVIOUSLY, THE HEALTH CARE FINANCING ADMINISTRATION HAS INSTRUCTED CARRIERS THAT PHYSICIANS MAY NOT BILL FOR THE SERVICES OF ANOTHER PHYSICIAN UNLESS THAT PHYSICIAN IS IN THE EMPLOY OF THE BILLING PHYSICIAN. THE HEALTH AND HUMAN SERVICES FINANCE COMMISSION MUST ALSO ENFORCE THIS NEW POLICY FOR MEDICAID.

The following example is cited: If a physician is on call for another physician and is not employed by that physician, then both physicians would be required to submit a bill for the appropriate dates of service to Medicare. Or, if physicians in a group take call for other members of that group, and the on call

physician is not in the employ of the patient's regular physician, then each physician would be required to submit a bill for the appropriate dates of service that the patient was in their care.

Please look for Medicare's complete article concerning this issue in your December Advisory from Blue Cross and Blue Shield.

Professional Relations Representatives

Remember, Medicare professional relations representatives are generally out in the field and not available for routine telephone inquiries. General questions should be directed to the appropriate telephone numbers below for timely responses. The professional relations representatives should handle only matters that cannot be resolved through the normal Service Center channels.

Participating: 735-1205, in Columbia
Non-Participating: 735-0624, in Columbia

Termination of Participating Agreement

If you are a participating provider and wish to terminate your participation agreement, you must do so by December 31, 1989. You must notify each Medicare carrier that you do business with. The opportunity to enroll as a participating physician will be held sometime after January 1, 1990. You will receive more information from the Medicare carrier concerning this issue as soon as HCFA makes it available. Refer to Special Bulletin 03-1189.

New Claims Processing System

Medicare will be implementing a new claims processing system in early 1990 and is sending monthly Medicare On-Line Bulletins on how this will affect the providers. The first one was released in November and references A CHANGE IN MEDICARE PROVIDER ID NUMBERS. Medicare will issue a bulletin to providers as soon as plans are finalized as to how the numbers will be changed, so that maximum time may be given for this change in provider billing number.

MEDICAID UPDATE

Increased Reimbursement Rates For OB Procedures

In an effort to enable maternal care providers to increase their participation in the SC Medicaid program, HHSFC has increased the reimbursement rates for an initial OB Exam (Procedure Code S1500) to \$50 effective for dates of service on or after July 1, 1989.

Maternal care providers will receive enhanced reimbursement if they are willing to perform some additional services which HHSFC

feels would improve the newborn's chances of survival. The reimbursement rate for an initial OB exam (Procedure Code S0110) would be \$100 for referral to the WIC supplemented food program and referral for any additional services available in the community and needed by the patient during pregnancy. Such additional service should be documented, i.e., "referred to WIC program."

For follow-up on previous referrals and telephone follow-up for missed appointments, an antepartum exam (procedure code S0012) would be reimbursed at \$40. An example of appropriate documentation in this case would be "patient receiving food supplement from WIC." Patients who repeatedly miss appointments should be referred to the local health department for maternal care outreach.

If you have questions, you are encouraged to call Ms. Ricken at 253-6134, in Columbia. Your participation in the SC Medicaid program is needed and appreciated.

BUDGET RECONCILIATION BILL FOR FY-1990

On November 21, the US House and Senate passed a budget reconciliation bill for FY-1990 (which actually began on October 1, 1989). Administration sources indicated President Bush would sign the bill. Following is a brief description of the major provisions:

1. RBRVS with a five-year transition beginning in 1992, with a geographic cost of practice adjustment. There will be no specialty differential.
2. Rejection of expenditure targets.
3. An advisory Medicare Volume Performance Standard (MVPS). The secretary of HHS is required to identify, analyze and report to Congress the sources of volume increases in Part B, significantly aiding efforts to debunk the myth that physician gaming is responsible for volume increases by supplying hard data for the first time rather than reliance on conjecture and anecdotes.
4. RBRVS Conversion Factor Update: If Congress fails to establish an update for physician fees, the default update has an absolute floor -- the update could be no less than MEI-2% for 1992 and 1993; MEI-2 1/2% for 1994 and 1995; MEI-3% for 1996.
5. Balance Billing Limits: The House provision prevailed, setting balance limits as follows:

- 1990: MAAC's calculated as in 1989.
- 1991: MAAC's will be capped at a maximum of 125% of prevailings.
- 1992: 120% of the nonpar RBRVS payment schedule (maintains 5% differential).

1993: 115% of the nonpar RBRVS payment schedule (maintains 5% differential).

6. Physician Submission of Claims: Requires all physicians to submit claims for Medicare beneficiaries and do so within one year of date of service (effective 9/1/90).

7. Practice Guidelines/Outcomes Assessment Research: Establishes new agency to promote, support, fund and conduct research into practice guidelines, outcomes assessment and technology assessment, and to disseminate the results.

8. Self-referral: Starting January, 1992, the bill prohibits referrals to a clinical lab in which a physician (or immediate family member) has an ownership interest, and also prohibits billing by the lab or physician investor for services provided by such referred to the lab to the physician's patients. There are exemptions for rural practices, group practices, in-office services and certain other arrangements. For ALL OTHER SERVICES: beginning October 1, 1990, entities with physician investors (or immediate families of physicians as investors) who provide Medicare services, must provide the secretary of HHS with the names and provider numbers of those investors.

9. PRO: Physicians are guaranteed the right to a reconsideration of substandard care denials by a PRO before notice is given to a beneficiary.

10. The Sequester for Part B services (2.092% reduction in payments) stays in effect through March 31, 1990.

11. 1990 BUDGET CUTS:

The MEI update for 1990 will be delayed until April 1. Thereafter, primary care services will receive a full ME-2 update (5.3%); other services will receive a 2% increase except as noted below.

For certain overpriced procedures (those identified as being valued by at least 10% over a comparison of payments for such service under a RBRVS), the prevailing charge will be reduced 15%, but no more than 1/3 of the amount to an adjusted prevailing based on the national weighted average prevailing charge for the service. As in other overpriced procedures, special MAAC's apply.

For radiology services, there will be no MEI increase. In fact, the fee schedule will be reduced by 4%. Special rules apply for services provided by nuclear physicians (80% of part B services are nuclear medicine). A new fee schedule will be established based 1/3 on the radiology fee schedule and 2/3 based on 101% of the 1988 prevailing charge for the service.

For anesthesia service, actual time will be used instead of

rounding to the nearest quarter hour.

New physician customary charges will be set at 85% of the prevailing charge.

Where surgery, radiology and diagnostic physicians' services are performed by more than one specialty, the prevailing charge for that service may not exceed the prevailing charge or fee schedule for that specialty which furnishes the service most frequently on a nationwide basis.

For clinical laboratory services, the maximum fee schedule will be 93% of the average of all fee schedules across the country.

Shell laboratories will be prohibited. To avoid being a shell lab, the lab will have to be located in a rural hospital, be wholly owned by the referring lab, or refer no more than 30% of the clinical lab tests for which it bills.

PRO UPDATE

Diagnosis and Procedure Changes on Attestation Statement

HCFA recently changed the instructions Carolina Medical Review (CMR) had received earlier on the requirements for a physician acknowledging changes in diagnoses and procedures on the attestation statement. It is now acceptable for the physician to initial and hand-date such changes, rather than using his/her full signature, as was originally requested.

Release of Physician-Specific Quality Information to Hospitals

HCFA's position on the release of physician-specific quality information to hospitals has been clarified as follows:

1. PROs may disclose physician-specific information related to one or more confirmed quality problems, with or without a request by the hospital.
2. The PRO cannot release information on potential problems or the corrective actions to be taken on confirmed cases. In addition, any information on a case or group of cases that are being used to develop a sanction recommendation cannot be disclosed.

Based on these changes by HCFA, the MRNC/CMR Board of Directors voted to cancel the previous CMR policy and immediately incorporate the following policy:

"CMR will release physician-specific information to the hospital in which the care was provided, on a case-by-case basis, upon confirmation of a quality problem after the final physician consultant evaluation. This information will be released without a specific request from the hospital."

FEDERAL PROFICIENCY TESTING REQUIREMENTS FOR PHYSICIAN OFFICE LABORATORIES

As reported earlier in this newsletter, the Clinical Laboratory Improvement Amendments of 1988 mandate that, by July 1, 1991, every physician office laboratory must meet minimum federal certification standards. These include quality assurance control, personnel standards and successful completion of proficiency testing for each examination and procedure performed in the laboratory for which proficiency testing is available--with just a few exceptions. The exceptions are laboratories that limit their testing to only certain "waived" tests that either "employ methodologies that are so simple and accurate as to render the likelihood of erroneous results negligible, or which pose no reasonable risk of harm to the patient if performed incorrectly." Government officials say the necessary regulations probably will not be available until January 1.

The AAFP, the American Society of Internal Medicine, the College of American Pathologists and the AMA last year jointly formed the Commission on Office Laboratory Assessment (COLA) which has as its specific purpose the accreditation of physician office laboratories. Four groups currently offer proficiency testing (PT) programs to which physicians or laboratories may subscribe to comply with that part of the new law. They are the American Society of Internal Medicine, the College of American Pathologists, the American Association of Bioanalysts and the American Academy of Family Physicians.

PUBLICATIONS AVAILABLE

The AMA Department of Practice Development Resources is offering a new publication entitled "How to Evaluate a Managed Care System Contract," which contains questions physicians should ask in evaluating an offer and the implications of the answers. It includes a format for figuring the financial impact of a managed care contract on a practice, a case study illustrating the contract evaluation process, and step-by-step worksheets for ongoing management of a practice and for evaluating new and existing contracts. The OP number is 035 and the price is \$45 for AMA members and \$65 for non-members. To order, call (800) 621-8335.

Orders are being taken for the 1990 edition of Current Procedural Terminology (CPT) which is available this month. CPT provides the most widely accepted system of descriptive terms and codes for reporting physician procedures and services under government and private insurance programs. Prices for AMA members are \$26.40 for the manual and complimentary Minibook, and \$26.40 for CPT Hospital Outpatient Services. The corresponding prices for non-members are \$33 each. CPT 1990 is also available in floppy disk format and magnetic tape. For more information or to order, call (800) 621-8335.

TRENDS IN PUBLIC KNOWLEDGE AND ATTITUDES ABOUT AIDS, SOUTH CAROLINA, 1987-1988*

JEFFREY L. JONES, M.D., M.P.H.
DANIEL T. LACKLAND, M.S.P.H.
LYNDA D. KETTINGER, M.P.H.
WILLIAM B. GAMBLE, JR., M.D., M.P.H.

Knowledge and attitudes about acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) may help to influence an individual's behavior as it relates to disease transmission. In addition, knowledge and misconceptions about AIDS and HIV may influence society's approach to control of the disease. We report here AIDS knowledge and attitudes from statewide surveys completed in 1987¹ and 1988 and discuss trends in the results.

BACKGROUND

As of June 30, 1989 there were 656 reported cases of AIDS and 2,646 reported cases of HIV infection in South Carolina which has a projected 1989 population of 3.5 million.² South Carolina ranks 24th for the annual incidence rate of AIDS, 7.3 per 100,000.³ The state population is approximately 68 percent white, 31 percent black, and one percent other race.

METHODS

Seventeen questions addressing AIDS and HIV knowledge and attitudes were appended to the South Carolina Behavioral Risk Factor Surveillance System (BRFSS) in 1987 and 1988. The BRFSS was established in South Carolina in 1983 through a cooperative agreement with the Centers for Disease Control. The primary purpose of the BRFSS is to provide data on selected health risk factors by conducting a monthly telephone survey of a representative sample of the state's adult population.

Approximately 150 respondents per month

18 years of age or older were selected by a random 3-stage cluster design and interviewed by telephone.⁴ Four trained telephone interviewers conducted evening interviews for one week during each month. Ten percent of the interviews were monitored; five percent were verified by callback. Refusals were called back on a different day and time. The response rate was 85 percent in 1987 and 81 percent in 1988 by criteria of the Council of American Survey Research Organizations.

Questions addressed five major areas: attitudes about AIDS, general knowledge about AIDS, knowledge of HIV transmission by casual contact, knowledge of HIV transmission by sex and intravenous drug contact, and knowledge of HIV transmission by blood transfusion and donation. The questions were developed by the South Carolina Department of Health and Environmental Control AIDS Program staff, adapted from questions recommended for the National Health Interview Survey developed by the National Center for Health Statistics. The data for 1987 and 1988 were weighted by age, race and sex utilizing the projected 1985 South Carolina population as a standard.

RESULTS

The 1987 and 1988 results for the five categories of questions are presented in Table 1. For each of the 17 questions, the percent indicating the correct response is given. Highlights and trends are discussed in the text.

Most respondents had heard of AIDS (99%) and considered themselves knowledgeable or very knowledgeable about AIDS (75% to 80%). Over 90 percent of those interviewed in both 1987 and 1988 gave correct responses to questions about sex and IV drug transmission.

* From the South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, S.C. 29201 (address correspondence to Dr. Jones).

KNOWLEDGE ABOUT AIDS

Table 1. Public knowledge and attitudes about AIDS, DHEC behavioral risk factor survey, South Carolina 1987 and 1988. Percent giving correct responses.

Questions (paraphrased)	1987 (%)* N=1793	1988 (%)* N=1854
Attitudes:		
1. Do you think AIDS is a health problem in South Carolina? (yes)	72	75
2. Should a child with the AIDS virus be kept out of school? (no)	48	55
3. Should people infected with the AIDS virus be banned from jobs where they have brief contact with other people? (no)	51	60
General Knowledge:		
1. Have you ever heard of AIDS? (yes)	99	99
2. How would you rate your personal knowledge of AIDS? (k or vk)**	80	75
3. Can a person who looks and feels healthy be infected with the AIDS virus? (yes)	87	86
4. Do you think there is a reliable and accurate test to detect the AIDS virus? (yes)	52	55
Blood Donation and Transfusion:		
1. Do you believe a blood transfusion from the Red Cross or similar blood bank is safe from AIDS? (yes)	38	42
2. Can a person become infected with the AIDS virus by giving blood? (no)	48	57
3. Can a person become infected with the AIDS virus by getting a transfusion from an infected person? (yes)	96	93
Casual transmission:		
1. Can a person become infected with the AIDS virus by touching a door knob? (no)	85	88
2. Can a person become infected with the AIDS virus by working with an infected person? (no)	70	80
3. Can a person become infected with the AIDS virus by kissing an infected person on the cheek? (no)	73	78
4. Can a person become infected with the AIDS virus by drinking from the same glass as an infected person? (no)	59	70
Sex and IV Drug Transmission:		
1. In the United States, do you think the AIDS virus can be passed on as a result of sex between a man and a woman? (yes)	92	93
2. Can a person become infected with the AIDS virus by having sex with an infected person? (yes)	97	95
3. Can a person become infected with the AIDS virus by sharing an injection needle with an infected person? (yes)	94	94

* 95% CI ± 2.3%

** Knowledgeable or very knowledgeable

In the areas of casual transmission, testing, and blood donation respondents were less knowledgeable (12% to 62% of respondents gave incorrect answers to questions in these categories). However, the responses to questions about casual transmission, testing, and blood donation showed improvement when comparing 1988 responses with those from 1987. Responses to attitude questions indicated that fewer people favored keeping HIV infected persons out of school and work in 1988 than in 1987.

DISCUSSION

It is apparent from the results of these statewide surveys that knowledge about AIDS and HIV transmission is increasing. This increase has also been identified in national surveys.⁵ Many factors may be responsible for the increase in knowledge including television, radio, and newspaper coverage of AIDS; the Public Health Service brochure mailed to most households in the United States in 1988; efforts of national, state and local health departments; school AIDS education; and information and education provided by private medical providers.

Respondents were very knowledgeable about transmission by the high risk behaviors addressed in this questionnaire. However, there were many misconceptions about HIV testing, casual transmission, and blood donation. Of particular concern is the belief that HIV can be transmitted when giving blood (in 1988 only 42 percent of respondents indicated that it was not possible to transmit AIDS by giving blood). In a national survey 67 percent of respondents indicated it was not possible or unlikely that HIV could be transmitted by donating blood.⁶

A limitation of the BRFSS is that it does not include interviews of those without telephones. This may bias the data against the economically disadvantaged, a group which may have a higher risk of acquiring HIV. The 1980 census found that approximately 10 percent of households in South Carolina did not have telephones.⁷

The South Carolina AIDS knowledge and attitude surveys have been used to design educational programs statewide. In addition, knowledge and attitude surveys are being used

in South Carolina to evaluate AIDS and HIV educational efforts.

SUMMARY

The South Carolina Department of Health and Environmental Control AIDS Program assessed the state population's knowledge and attitudes about AIDS and HIV transmission in 1987 and 1988. Each year approximately 1,800 adults were selected by a random 3-stage cluster design and asked seventeen questions by telephone about AIDS and HIV. Questions addressed attitudes, general knowledge, HIV transmission by casual contact, HIV transmission by sex and IV drug contact, and HIV transmission by blood donation and transfusion. Over 90 percent of respondents were knowledgeable about HIV transmission by high risk behaviors addressed in the questionnaire. Respondents were less knowledgeable about HIV transmission by casual contact (12 to 41 percent gave incorrect answers), HIV testing (45 to 48 percent gave incorrect answers), and transmission by blood donation (43 to 52 percent gave incorrect answers). In general, a higher percentage of correct responses were given in 1988 than in 1987. In regard to responses measured by this survey, we conclude that: (1) there is a high level of knowledge in the state about transmission by high risk behaviors, (2) there are still many misconceptions about casual transmission, HIV testing, and blood donation, and (3) there was improvement in knowledge about AIDS and HIV from 1987 to 1988. □

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Editorials

PEACE AND GOOD WILL

Among the blessings of the holiday season is the opportunity to set our priorities for the coming year, to reflect upon what really matters in our lives. Looking back on 1989 and looking forward to 1990, two observations give special meaning to this year's reflections.

Looking back, there was Hugo. The current volume of *The Journal* opened last January with a reminder by our association's president that South Carolina is a poor, small, and "very provincial" state—usually at or near the bottom in various national rankings.¹ It seems cruel and ironic that our state should have borne the brunt of the most costly natural disaster in the history of the United States. The hurricane's terrible capriciousness gave compelling proof that we are never in full control of our individual or collective destinies.

Looking forward, this year's holiday season marks the beginning of the last decade of the second millennium—A.D. (*Anno Domini*) or C.E. (Common Era), however one chooses to call it. Two thousand years might seem like a rather trivial span from the anthropologist's perspective that our species is some 4.5 million years old. Yet judging from the way things have been going lately, the prospects for another two thousand years do not seem especially bright for *Homo sapiens*. Within our lifetimes, we have already seen the appearance of two unique and unprecedented threats to species survival: first nuclear weapons and now AIDS. We can anticipate that the nineties will be, among other things, a time for re-evaluating our collective worldview.

In Hugo's wake, a substantial portion of South Carolina now seems makeshift: makeshift dunes for our beaches; even makeshift shelters for endangered species such as the red-cockaded woodpecker. We might recall that *Time* began 1989 by naming the earth "planet of the year"—a fragile planet assaulted on many fronts by 20th century human activities.²

We, like the red cockade, live within narrow parameters—parameters paradoxically threatened by progress made possible by science. Can we, as physicians, offer any special insights into how to make scientific progress somehow compatible with the long-range interests of humanity and of life on earth?

Perhaps. The most optimistic point of view, I suggest, is that put forward two years ago in *The Journal* by Dr. C. D. Bessinger, Jr., of Greenville: the concept of "reverence for life" as applied to our daily clinical practices.³ Within this concept, we have as physicians a unique opportunity to grapple first-hand with the tension between what might be called the scientific and the religious (in the very broadest sense) approaches to the human predicament. It may be useful to review briefly the history of this tension (Figure).

In Western thought, the tension arose on opposite shores of the Mediterranean in the ancient world. To explain nature's apparent order and purpose (*telos*), the Israelites turned to Yahweh. Meanwhile, Greeks such as Democritus and Aristotle turned to science. An uneasy truce forged by the early Christians—who wrote and thought in Greek—was consummated by St. Thomas Aquinas' brilliant synthesis whereby all of nature attested to the glory of God. Aquinas, it has been said, baptised Aristotle. Regrettably, the church failed to understand that science is a way of thinking, not a body of facts—a verb rather than a noun. Hence, the discrediting of dogma was seen as unacceptable, and Galileo had to go. Sir Isaac Newton tried valiantly to bring all of knowledge back together, but his argument didn't hold. Today, both physicists and molecular biologists attribute the smallest, most fundamental events to random chance—just as Democritus in ancient Greece had predicted would be the case. To an ever-increasing extent, science and religion have come to be

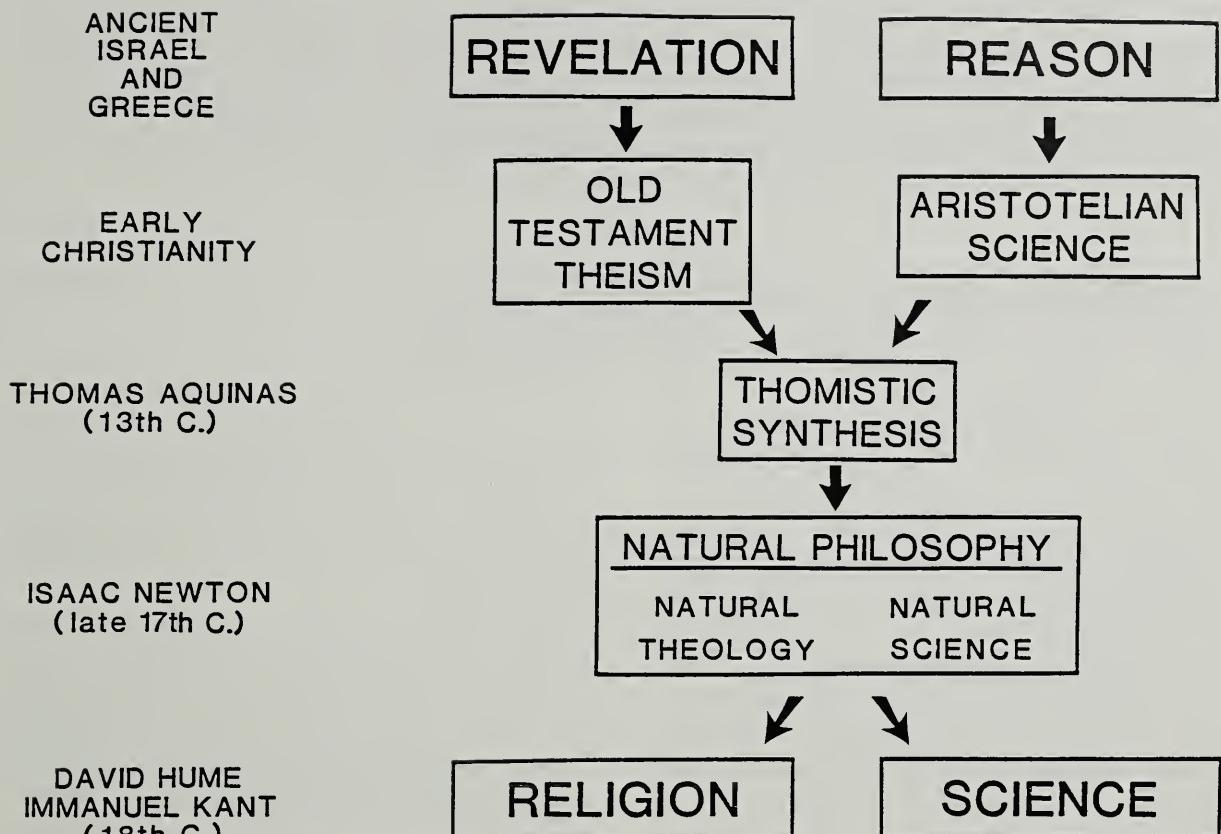


FIGURE. A brief overview of the tension between religion and science in Western thought (see text).

viewed as separate, watertight compartments of human thought.⁴

Whatever our perspectives may be on the Big Question—the question of ultimate *telos* or First Cause—we should rejoice as physicians in our daily opportunity to combine the competing traditions. In no other profession is it so easy to blend in one's daily work what Osler called “philanthropia and philotechnia—the joy of working joined in each one to a true love for his brother.”⁵ Today, we joyfully apply such tools as lasers, nuclear magnetic resonance, and monoclonal immunoglobulins to our daily medical practice. Simultaneously, the new science brings ethical problems of unprecedented scope. Hence, in both areas (philanthropia and philotechnia), the challenges have never been greater nor more exciting. In perhaps no other profession is it so readily feasible to combine the two traditions by using, as Dr. Bessinger suggests, “reverence for life” as a unifying principle. In no other profession is it so feasible to lose oneself in the service of

others and—in so doing—to teach by example, to instill the value of having values.

“Reverence for life” is not a passive quality, but rather an extremely active process. Its facilitating virtues include courage and humility. But to be effective, we must have a clear sense of our own priorities. For ourselves, for each other, and for our patients, the traditional salutation of the holiday season seems a good place to start. *Peace on earth, good will toward men.*

—CSB

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During October's Red Ribbon Week, we were reminded that alcohol and other drugs are involved in 50% of all fatal automobile accidents; 80% of all fire deaths; 69% of all drownings; 55% of all arrests; 35% of all rapes; 30% of all suicides; 60% of all child abuse cases; and 85% of all homicides. Next month's issue of The Journal will be devoted entirely to the problem of chronic alcoholism and other substance abuse. In this issue, Dr. Stephen Holt provides an overview of the clinician's role, and in the following editorial he also makes a case for secondary prevention (as opposed to primary or tertiary intervention). Guest editorials represent the opinions of the authors and do not necessarily reflect the policies or positions of the South Carolina Medical Association.

—CSB

TACKLING THE ALCOHOL PROBLEM: THE CASE FOR SECONDARY PREVENTION

Alcohol abuse and its consequences present pervasive problems that have major medical, political and socio-economic implications.^{1, 2} The problems that arise from the way alcohol is used in our society result from ambivalent attitudes. Drinking is perceived as appropriate for various social events and "sociability" may be reinforced by excessive drinking. Our consumer society is bombarded with advertisements that associate drinking with sporting pursuit, elegance and even healthy lifestyle.³ Excessive drinkers, whether sociable, misguided, sinful or diseased, are often rejected, especially when the pleasant drunk becomes antisocial or ill. Approval and condemnation of alcohol go hand in hand.

The United States Department of Health and Human Services has highlighted alcohol and drug abuse as a target objective for the nation in 1990.⁴ Recently, the U. S. Congress commissioned the Institute of Medicine in Washington to make recommendations for new legislation to tackle alcohol problems. Alcohol abuse is the most serious human service problem in South Carolina and, on the whole, the abuse of alcohol and other drugs costs the state economy \$2.8 billion dollars each year.⁵ This cost approximates to the same amount as the entire annual budget of the government of South Carolina. In our state, admissions to treatment programs for alcohol abuse appear to be rising and total pure alcohol consumption per capita in the population over the age of 18 years may exceed the national average in 1989.⁵ The encouraging findings that the percentage of the adult population of South Carolina who drink or are heavy drinkers appear lower than national averages should be viewed

with caution. Justification for such caution emanates from the finding that five percent of the adults in South Carolina drink at least one half of all the alcohol consumed,⁵ revealing the existence of a distinct and large group of problem drinkers.

The early identification of alcohol abuse and intervention, at a stage when the prognosis for recovery is good, would appear to be an attractive option to reduce the prevalence of alcohol related morbidity.¹⁻³ Some of the potential advantages and disadvantages of levels of prevention that can be applied to alcohol abuse are summarized in Table 1. Primary prevention does not appear feasible by virtue of its connotations or political implications, whereas tertiary prevention, that involves rehabilitation of patients with adverse sequelae of excessive drinking, will not reduce the prevalence of alcohol abuse.¹⁻³ The focus of medical management is traditionally at the tertiary level where cure is not possible, morbidity is inevitable and mortality may be predetermined. For example, it has been estimated that between 30 and 50 percent of heavy drinkers may with time develop alcoholic liver disease and an erroneous perception has prevailed that "alcoholics" with liver disease account for the majority of alcohol related morbidity, mortality and financial liability.¹ Frequently, physicians and allied health care workers may focus their attention on the biomedical consequences of excessive alcohol intake at the expense of considering the significant social and economic burden that the early problem drinker may pose to society.⁶

The concept of secondary prevention for alcohol problems is as "old as the hills" but as

<u>LEVEL OF PREVENTION</u>	<u>ADVANTAGES</u>	<u>DISADVANTAGES</u>
PRIMARY	POTENTIALLY EFFECTIVE WILL REDUCE PREVALENCE OF ALCOHOL PROBLEMS	LACK OF POLITICAL AND SOCIAL ACCEPTANCE HISTORICALLY UNSUCCESSFUL IN LONG TERM
SECONDARY	EFFECTIVE IN EARLY STUDIES READILY APPLIED USING VALIDATED DETECTION INSTRUMENTS	REQUIRES CHANGE IN MEDICAL AND "SOCIAL" PRACTICE COST? "ALCOHOLISM" IS NOT A "CLEAR CUT" SYNDROME
TERTIARY	TRADITIONAL MEDICAL FOCUS DEALS WITH CONSEQUENCES OF LONG TERM PROBLEM DRINKING	"TOO LATE" FOR RECOVERY WILL NOT REDUCE PREVALENCE OF ALCOHOL PROBLEMS NOT COST-EFFECTIVE?

TABLE 1: SOME ADVANTAGES AND DISADVANTAGES OF LEVELS OF PREVENTIVE EFFORTS THAT CAN BE USED TO TACKLE ALCOHOL PROBLEMS.

topical as ever.^{1-3, 7} Despite promising evidence that secondary prevention may be beneficial,¹ identification of alcohol problems and intervention in clinical practice have not gained widespread acceptance.⁷ In the same way that alcohol abuse may arise from an ambivalent attitude in our society, such ambivalence in medical or "social" practice contributes to our inability to impact alcohol problems.

With few exceptions, screening for alcohol problems in the U.S.A. appears to be applicable only in health care settings.² Screening should proceed ideally in high risk groups and the level of sophistication of an assessment measure of alcohol problems should be tailored to the clinical context.^{1, 2} Secondary prevention for alcohol problems remains embryonic in its application and may have most chance of success in selected areas such as general medical clinics, community health programs, and hospital emergency departments.^{1, 2, 6-8}

General population screening by non-physician, health care personnel is an attractive pos-

sibility that may have daunting financial implications, especially if case finding results in a swamping of treatment facilities.² A clinic nurse or nurse practitioner who has a clear role in patient contact may be an ideal individual to engage in identification and limited intervention. However, the plot is not so simple.¹ It seems likely that a significant proportion of patients attending a medical clinic for a specific complaint may react adversely to the apparent intrusiveness of screening for alcohol problems. Invasion of privacy, potential violation of rights and fear of "labeling" compound the issues. Furthermore, would all patients elect to pay directly or indirectly for a service they may not want, even if they need it?¹ In addition, to extol the virtues of secondary prevention for alcohol problems may at first sight seem unattractive to the busy physician who does not have time or cannot "afford" to conduct interviews or clinical examinations aimed at the detection of problem drinking. Such excuses for medical procrastination may be mitigated by the recent development of brief diagnostic instruments⁷⁻⁹ that can be im-

plemented readily in clinical practice to detect problem drinkers.

Political legislation that would materially influence the widespread institution of early intervention for alcohol problems could focus on the financing of health care.¹⁰ There is no doubt that designation of federal or state funds for secondary prevention of alcohol problems could lead to establishment of widespread screening and intervention which could in turn lead to a reduction in the prevalence of alcohol abuse and problems. Political pressure applied to insurance carriers and hospital management organizations to support secondary prevention is consistent with the current "wellness concepts" that have percolated medical practice and the professed intention of these organizations. Appropriate political legislation that would facilitate widespread secondary prevention of alcohol abuse will be a major long-term investment in the health of American citizens. If this prevention reduces the prevalence of alcohol problems, then there would be enormous social and economic advantages for the nation.⁴ Proponents of the economic reform of health care services, that is aimed at cost containment, must be more cognizant of the potential long-term benefits of preventive medicine, especially where alcohol and other substance abuse are concerned.

Pandora's box is open, "hope" remains but procrastination persists. To date, no medical or political action has succeeded in reducing the prevalence of excessive alcohol consumption in a consistent manner.³ Medical attention has focused on the advanced problem drinker where significant social and medical disability frequently negates recovery.² In contrast, political inertia has resulted in a lack of sufficient encouragement or financial support for preventive measures.³ Politicians have been unwilling to implement primary preventive measures and it seems to be clear that the application of secondary prevention for alcohol abuse may achieve more than any foreseeable

political action.¹⁰ A joint medical and political effort that endorses case finding and intervention provides a logical approach for improving the short and long term well being of problem drinkers who comprise a significant proportion of the population of North America.

STEPHEN HOLT, M.B.
Department of Medicine
University of South Carolina
School of Medicine
2 Richland Medical Park,
Suite 506
Columbia, S. C. 29203

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On the Cover:

THE MEDICAL SOCIETY OF SOUTH CAROLINA

On Christmas Eve 1989, the Medical Society of South Carolina will celebrate its 200th birthday. Formed by a group of Charleston "Gentlemen, Practitioners of Medicine" to "promote liberality in the Profession, and Harmony amongst the Practitioners in this City," the Society has, through the years, performed its mission well. Three of its more outstanding and lasting contributions to medicine in South Carolina are represented on this month's cover.

On January 1, 1824, in response to a petition by the Medical Society, an Act of Incorporation of a medical school passed the South Carolina Legislature. This act allowed the Society to organize a medical school, to institute professorships, and to confer medical degrees. One serious flaw in the act which would not be corrected until the 20th century was the lack of state funding for the new school. The problem of raising monies fell to the newly elected faculty. Nevertheless, through schism, earthquake, epidemics and war, the medical college continued, at times eliminating tuition fees entirely, often assessing from the faculty money to carry on. The doors were closed only once: from 1861 to 1865. Though no longer under the governance of the Medical Society, the medical college, now the Medical University of South Carolina, is a proud reminder of the foresight of the Society.

With a bequest from Charleston philanthropist Thomas Roper as a start, the Medical Society erected the first Roper Hospital on the

corner of Queen and Mazyck Street in 1852. This hospital, the first community hospital of any size in the state, was opened for regular use in 1856. Its purpose, according to the will of Mr. Roper, was "for the permanent reception or occasional relief of all such sick, maimed and diseased paupers as need surgical or medical aid and whom without regard to complexion, religion or nation I would they should admit therein." Roper Hospital, now on its third site, is still growing, still serving the community, and still governed by the Medical Society.

The third major accomplishment of the Medical Society of South Carolina was the formation of the South Carolina Medical Association. After Charleston doctors were instrumental in the formation of the AMA in 1847, the Society felt the need of a state organization, and in 1848, called a convention for the purpose of establishing such a group. On February 14, the convention convened and proceeded to resolve itself into the South Carolina Medical Association. The Medical Society became one of the constituent district societies which made up the state association.

We applaud the Medical Society for its proud heritage and its years of service to the people of South Carolina and wish for them that the next 200 years be as productive.

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PYHICIAN RECOGNITION AWARDS

The following SCMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned.

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Auxiliary Page

WHAT IS AMA/ERF?

American Medical Association Education and Research Foundation (AMA/ERF)—what does it mean to you? Why do I witness so much enthusiasm year after year for AMA/ERF? What do they know that I don't?

The AMA/ERF was established by the AMA Board of Trustees over 35 years ago to help support quality education in the nation's medical schools. Since that time, the foundation has distributed more than 48 million in gifts to medical schools and guaranteed over 95 million in loans, benefiting more than 40,000 medical students, interns and residents.

The individual contributor designates to which medical school his or her tax deductible donation is given. The contributor also chooses between the Medical School Excellence Fund and the Medical Student Assistance Fund.

The Medical School Excellence Fund is the oldest of the funds and the largest. Grants are provided to the medical schools to use as they see fit. Often these monies are the only unrestricted funds that the dean may use. These deans repeatedly stress their appreciation for the flexibility this allows in supporting varied activities. They have been remarkable in accounting for the funds received. The following quotes are from deans of medical schools.

"Areas which benefit from the excellence check are the student's opportunity to hear guest lecturers, the attendance and participation in continuing education courses, presentation of papers at national meetings and the purchase of equipment and subscriptions to professional and scientific publications. We have used these funds for the summer student research fellowship program, freshman orientation, minority physician seminar, career decision-making workshop and cost of the yearly graduation reception. Giving unrestricted funds allows the dean to initiate new programs, rescue programs of worth and provide the necessary tools and atmosphere for a quality education."

The Medical Student Assistance Fund requires that the schools use the funds to help support bonafide educational expenses for medical students. Again, the deans are quoted:

"The monies restricted for student assistance will be used to assist students with temporary, interest-free loans to pull them through critical budgeting problems." "This gift will be added to our existing student loan fund." "We are applying the entire amount to our financial aid-loan program for medical students. This important program is the mainstay of our institutionally-based financial aid effort and we are deeply grateful."

Some schools receive more funds than others. Why? The contributor designates the school to which the money is given. When local societies and auxiliaries enthusiastically support AMA/ERF, we see significant increases in the donations to schools from that area. We also see the development of working relationships between the medical community and the medical school.

To promote the quality of medical education for those young people who will be joining us in practice for the future health of our communities and our families, whether my child chooses to be the physician and/or inevitably becomes the patient, I will have participated in affecting the quality of care given.

Ralph Waldo Emerson: "It is one of the most beautiful compensations of life that no man can sincerely try to help another without helping himself."

LINDA GALPHIN (MRS. ROBERT L.)
1989-90 South Carolina AMA/ERF Chairman

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